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BALTIMORE, NOVEMBER 28, 1912.

## THE SOUTH INTERESTED IN BANK MERGER AT BALTIMORE.

Baltimore has long been a financial center, active and influential in the development of the South. Its financial institutions are closely identified with the railroads, the cotton mills, the lumber plants and other industrial undertakings of that section. The city's activity and influence are to be enhanced in the working out of the plans announced last Saturday for the merger of the Merchants' National Bank, with a capital of \$1,500,000 and surplus of \$800,000, and the National Mechanics' Bank, with a capital of \$1,000,000 and a surplus of \$1,000,000. The new corporation, which will be called the Merchants & Mechanics' National Bank, will have a capital of \$2,000,000 and a surplus of \$2,000,000, nearly one-sixth of the aggregate capital and nearly one-fourth of the surplus of all the National banks in Baltimore, and with aggregate resources of \$25,000,000, something less than a quarter of the aggregate resources of the National banks of the city. Certain economies in administration will be effected by this consolidation, but its great advantage lies in its massing of great financial resources under one management making possible the carrying out with Baltimore capital of large enterprises in that city and offering greater facilities than ever for undertakings in other parts of the South.

## ADVANTAGES IN DRAINAGE.

The widely-ramified advantages to be derived from systematic reclamation work and the protection of lands from overflow are illustrated in a report to the Board of Trade of Little Rock by

Secretary H. G. Spaulding, secretary of the Chamber of Commerce of Pine Bluff, upon the results for Jefferson county, Arkansas, to come from confining the Arkansas River to a permanent channel, as follows:

1. Half a million acres of land would be reclaimed.
2. The value of this land would not be less than \$20 per acre.
3. Cotton and forage crops worth \$25 per acre would be raised on the land.
4. The timber acreage affected by overflows under present conditions is about 50,000 acres.
5. The tonnage that would go to the Arkansas River if permanently navigable would amount to 750,000 bales of cotton, 2000 cars of merchandise and 1000 cars of timber for export.

Arkansas has 5,700,000 acres of wet lands, something less than one-sixth of its total area. It has 17,377,000 acres of farm land, of which 8,062,000 acres are under cultivation and yielding annually to the value of about \$154,000,000. According to the estimate of Secretary Spaulding, the reclamation of the half-million acres of land along the Arkansas River in Jefferson county would make it possible to add \$12,500,000 to the agricultural production of the State. On that basis, the reclamation of all the wet lands of the State would add \$143,000,000, nearly doubling the present agricultural production. Such a desirable situation is within the range of the possibility, and, indeed, if the full agricultural potentialities of Arkansas should be developed, that State would have an annual income from its farms little short of \$500,000,000.

## SAVING LATE COTTON.

C. R. Smith of Ardmore, Okla., has a plan for saving \$200,000 worth of late cotton in the county of Carter, in which Ardmore is situated. Says the *Ardmoreite*:

In his opinion, the late cotton crop will not open—that is, not much of it, as long as the stalk remains in the ground and the sap reaches the pod. His plan is to plow up the stalk, turn it top down, let the pods dry and open, and do the gathering from the upturned stalk. The stalk made the lint, but the frost came before the last pods had time to open. Mr. Smith says the pod will make a covering for the cotton when the stalk is upside down, and will protect it from the weather. Some of the Carter county farmers are trying the plan, and reports may be expected as to the results.

Five or six years ago considerable cotton was threatened with destruction in parts of Texas and Oklahoma. An early frost had nipped the tops of the growing plants, but had not destroyed the bolls. A few weeks later came a killing frost, before the bolls had opened. A thinking farmer in Texas tried the experiment of putting these unopened bolls through a wheat threshing machine with results so satisfactory, although yielding a low-grade cotton, that his example was followed in quite a large territory, and about \$2,000,000 of cotton was thus saved. As the *MANUFACTURERS RECORD* suggested at the time, this crude experiment, following

the natural phenomenon, gave a hint which may be profitably studied by inventors of cotton-harvesting machines.

## HOW THE COST OF LIVING IS INCREASED.

Taxpayers of the country hardly realize the extent of the increase in the cost of living due to the expenditure of their money upon national political campaigns every two years. This does not refer to the millions voluntarily contributed by the members of the great parties in support of candidates, but to the moneys taken from the Treasury to further the political fortunes of candidates. Strong light upon this abuse, which is confined to the politicians and office-seekers of no party, is thrown in this statement of Postmaster-General Hitchcock:

The unusual expense entailed upon the postal service through the transmission by mail of the great amount of political matter during the primary campaign created a temporary deficit for the first time in two years, the total expenditures for the fiscal year of 1912 aggregating \$248,525,000, while the total revenues amounted to \$246,744,000. Had it not been for the cost of carrying franked political mail, the postal account would have shown a surplus of more than \$1,000,000 instead of a deficit of \$1,781,000. And this surplus I have indicated would have been developed notwithstanding the fact that the compensation of postal employees was increased during the year by an aggregate of \$6,000,000.

Commenting upon this statement, the *Washington Post* estimates that of the total of 1,613,000,000 pounds of mail handled in the past fiscal year, 61,377,000 pounds represented 310,245,000 pieces of mail franked for Congress, the executive departments and other Government establishments which, if postage at the ordinary rate had been paid, would have yielded nearly \$20,000,000. Of that sum \$3,250,000 would have been paid on political documents, including speeches, many of them not made in Congress; reports of various kinds, and a complete campaign-book, "all of which had been made technically frankable by insertion in the *Congressional Record*."

So the people of the United States really paid \$3,250,000 for the purpose of enabling candidates for Congress and others to circulate free of cost the excuses for their election to public office. That sum represents only the circulation of confessedly political documents, although it is fair to believe that at least three-quarters of the franked documents, representing an expenditure of nearly \$20,000,000, had a direct or indirect campaign purpose. About \$10,000,000 would be a modest estimate of the amount of such campaign expenses fastened upon the people in the item of circulating campaign material alone. Another \$2,000,000 might be added as the cost of the printing of the campaign material, and then should be added the \$12,000,000 increase in the appropriations for pensions made by the Congress at its last session.

The aggregate would not be short of

\$25,000,000 of campaign funds from the pockets of the people by way of the Federal Treasury. That sum is more than double the amount of the aggregate of political party campaign funds in the most debauching campaign in the history of the country.

It is a very keen game that the office-holding politicians of the country put over the taxpayers. Because the latter are not directly assessed at an average of a quarter of a dollar for each inhabitant of the country, and at a much higher average for each taxpayer, the players of the game, who are strictly non-partisan in making it possible in Congressional appropriations, reckon with some degree of assurance that the people of the country do not realize that they are thus sandbagged. In their failure to understand the real situation, the people do not know that these unnecessary and extraordinary campaign expenses are just so much added to their annual cost of living, while the diversion of such a vast sum from productive undertakings tends to increase the price they have to pay for the necessities of life.

And not a single "statesman" in Congress who has profited by this burden upon the people may be expected to refer to that burden in the large number of campaign documents on the cost of living which the incoming Congress is likely to circulate at the expense of the people.

## THE SOUTH'S FARM CROPS.

The South has every reason to enter into the spirit of Thanksgiving Day as it considers the outcome of its farm operations of 1912. Its record-breaking in cotton-growing of 1911 has not been equaled, to be sure, although the money returns from this year's crop are likely to equal those of last year. But more and more the proportion of cotton in the general agricultural production of the South is gradually becoming less and less. A few facts revealed in the accompanying tables about some of this year's crops other than cotton indicate the general tendency. Comparison of six crops in 1911 and 1912 is made, as follows:

	1912.	1911.
Corn, bushels.....	1,135,939,000	915,281,000
Wheat, bushels.....	98,086,000	101,750,000
Oats, bushels.....	137,865,000	93,936,000
Irish potatoes, bus.	49,199,000	26,368,000
Tobacco, pounds.....	698,941,000	644,110,000
Hay, tons.....	11,926,000	7,254,000

In every one of these crops, except wheat, there was an increased yield this year—of 220,658,000 bushels, or 24.1 per cent., in corn; of 43,929,000 bushels, or 46.7 per cent., in oats; of 22,831,000 bushels, or 86.6 per cent., in Irish potatoes; of 54,831,000 pounds, or 8.5 per cent., in tobacco, and of 4,672,000 tons, or 64.5 per cent., in hay.

There was a decline in 1912 in the average yield per acre below the ten-year average in Arkansas and Oklahoma as to corn; in Arkansas, Mississippi and Oklahoma, as to oats; in Arkansas, Oklahoma and Texas, as to

Irish potatoes; in Kentucky, Louisiana, Maryland, North Carolina, South Carolina, Tennessee and Virginia, as to tobacco, and in all the Southern States, except Maryland, Missouri, Oklahoma and West Virginia, as to hay.

The corn crop of the country was the largest ever produced, but the 1,135,939,000 bushels grown in the South were

Corn, Bushels.			
States.	1912.	1911.	
Alabama.....	53,664,000	54,000,000	
Arkansas.....	52,163,000	49,712,000	
Florida.....	8,064,000	9,286,000	
Georgia.....	54,510,000	59,072,000	
Kentucky.....	109,440,000	93,600,000	
Louisiana.....	33,815,000	33,300,000	
Maryland.....	24,455,000	24,455,000	
Mississippi.....	56,840,000	54,150,000	
Missouri.....	243,904,000	192,400,000	
North Carolina.....	51,106,000	49,680,000	
Oklahoma.....	101,878,000	36,888,000	
South Carolina.....	34,278,000	32,578,000	
Tennessee.....	86,632,000	91,120,000	
Texas.....	153,300,000	69,350,000	
Virginia.....	47,520,000	47,520,000	
West Virginia.....	24,370,000	18,170,000	
Total.....	1,135,939,000	915,281,000	
United States.....	3,169,137,000	2,531,488,000	

Corn—Yield Per Acre, Bushels.			
States.	1912.	1911.	Ten-year average.
Alabama.....	17.2	18.0	14.9
Arkansas.....	20.4	20.8	20.5
Florida.....	12.2	14.6	11.2
Georgia.....	13.8	16.0	12.6
Kentucky.....	30.4	26.0	28.1
Louisiana.....	18.6	18.5	18.6
Maryland.....	26.5	26.5	33.9
Mississippi.....	18.3	19.0	17.0
Missouri.....	32.0	26.0	30.7
North Carolina.....	18.2	18.4	16.1
Oklahoma.....	18.7	6.5	23.0
South Carolina.....	17.9	18.2	13.9
Tennessee.....	26.0	26.8	24.9
Texas.....	21.0	9.5	19.0
Virginia.....	24.0	24.0	23.8
West Virginia.....	33.8	25.7	27.7

149,676,000 bushels less than that section's crop of 1910. The total yield in 1912 was less than that of 1911 in Alabama, Florida, Georgia and Tennessee, and the large increases were of 83,950,000 bushels in Texas, 64,900,000 bushels in Oklahoma, 51,504,000 bushels in Missouri and 15,840,000 bushels in Kentucky.

In every State, except Kentucky, Maryland and Missouri, the average acre production of wheat was above

Wheat, Bushels.			
States.	1912.	1911.	
Alabama.....	318,000	345,000	
Arkansas.....	940,000	1,008,000	
Georgia.....	1,256,000	1,740,000	
Kentucky.....	6,800,000	9,906,000	
Maryland.....	8,970,000	9,378,000	
Mississippi.....	96,000	108,000	
Missouri.....	23,932,000	36,110,000	
North Carolina.....	5,322,000	6,636,000	
Oklahoma.....	20,243,000	8,976,000	
South Carolina.....	727,000	946,000	
Tennessee.....	7,004,000	8,280,000	
Texas.....	10,560,000	6,580,000	
Virginia.....	8,506,000	9,000,000	
West Virginia.....	3,262,000	2,737,000	
Total.....	98,086,000	101,750,000	
United States.....	720,333,000	621,338,000	

Wheat—Yield Per Acre, Bushels.			
States.	1912.	1911.	Ten-year average.
Alabama.....	10.6	11.5	10.2
Arkansas.....	10.0	10.5	10.0
Georgia.....	9.3	12.0	8.9
Kentucky.....	10.0	12.7	11.5
Maryland.....	15.0	15.5	15.6
Mississippi.....	12.0	12.0	10.8
Missouri.....	12.4	15.7	13.5
North Carolina.....	8.9	10.6	8.6
Oklahoma.....	13.3	8.0	11.8
South Carolina.....	9.2	11.4	8.6
Tennessee.....	10.5	11.5	9.9
Texas.....	15.0	9.4	10.5
Virginia.....	11.6	12.0	10.8
West Virginia.....	14.0	11.5	11.5

the ten-year average, but there was a decrease in actual production in every State, except Oklahoma, Texas and West Virginia, under the production of 1911. The South shared the experience of the country in winter wheat, the decrease in the United States having been

40,714,000 bushels, and the wheat situation as a whole having been saved by an increase of 139,709,000 bushels in the spring wheat of the Northwestern States. The oat crop of the country, 1,417,172,000 bushels, was a record-

Oats, Bushels.			
States.	1912.	1911.	
Alabama.....	5,200,000	5,434,000	
Arkansas.....	3,463,000	4,100,000	
Florida.....	740,000	580,000	
Georgia.....	7,571,000	8,686,000	
Kentucky.....	4,035,000	3,128,000	
Louisiana.....	734,000	840,000	
Maryland.....	1,350,000	1,242,000	
Mississippi.....	1,966,000	2,392,000	
Missouri.....	33,264,000	17,760,000	
North Carolina.....	3,794,000	3,614,000	
Oklahoma.....	23,268,000	8,181,000	
South Carolina.....	6,966,000	7,038,000	
Tennessee.....	5,539,000	6,142,000	
Texas.....	32,972,000	18,499,000	
Virginia.....	3,885,000	3,880,000	
West Virginia.....	3,058,000	2,420,000	
Total.....	137,865,000	93,936,000	
United States.....	1,417,172,000	922,298,000	

Oats—Yield Per Acre, Bushels.			
States.	1912.	1911.	Ten-year average.
Alabama.....	20.0	19.2	16.5
Arkansas.....	19.9	20.0	21.3
Florida.....	17.2	13.5	14.1
Georgia.....	20.8	21.5	16.3
Kentucky.....	26.9	18.4	21.3
Louisiana.....	21.6	21.0	18.0
Maryland.....	30.0	27.0	26.6
Mississippi.....	17.4	18.4	17.5
Missouri.....	33.0	14.8	24.4
North Carolina.....	18.6	16.5	15.5
Oklahoma.....	25.1	9.0	27.9
South Carolina.....	21.5	20.4	18.1
Tennessee.....	21.7	19.5	20.3
Texas.....	35.8	25.1	28.4
Virginia.....	22.2	20.0	18.8
West Virginia.....	27.8	22.0	22.9

breaker, the nearest to it having been 1,126,765,000 bushels, in 1910. The crop in the South was also a record-breaker for that section, and 16,566,000 bushels greater than the next largest crop, that of 1887. The South's 1912 record was made in spite of decreases under 1911 in Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina and Tennessee, the large increases having been 15,504,000 bushels in Missouri, 15,087,000 bushels in Oklahoma and 14,473,000 bushels in Texas.

Because the South is eminently the home of the sweet potato, as it raises the greater portion of the crop of the country, its increasing importance in

Irish Potatoes, Bushels.			
States.	1912.	1911.	
Alabama.....	1,215,000	1,170,000	
Arkansas.....	1,750,000	1,430,000	
Florida.....	1,056,000	900,000	
Georgia.....	960,000	864,000	
Kentucky.....	5,100,000	2,028,000	
Louisiana.....	1,460,000	1,518,000	
Maryland.....	4,070,000	1,755,000	
Mississippi.....	880,000	747,000	
Missouri.....	7,980,000	2,565,000	
North Carolina.....	2,550,000	1,488,000	
Oklahoma.....	1,740,000	540,000	
South Carolina.....	900,000	700,000	
Tennessee.....	3,344,000	1,558,000	
Texas.....	2,944,000	2,850,000	
Virginia.....	8,075,000	4,275,000	
West Virginia.....	5,175,000	1,980,000	
Total.....	49,199,000	26,368,000	
United States.....	414,289,000	292,737,000	

Irish Potatoes—Yield Per Acre, Bush.			
States.	1912.	1911.	Ten-year average.
Alabama.....	81	78	75
Arkansas.....	70	55	72
Florida.....	96	90	87
Georgia.....	80	72	74
Kentucky.....	100	39	77
Louisiana.....	73	69	66
Maryland.....	110	45	83
Mississippi.....	88	83	86
Missouri.....	84	27	82
North Carolina.....	85	45	74
Oklahoma.....	60	18	69
South Carolina.....	90	70	80
Tennessee.....	88	41	72
Texas.....	64	57	65
Virginia.....	85	45	80
West Virginia.....	115	45	86

the growing of Irish potatoes is frequently overlooked. But between 1911

and 1912 the Irish potato crop in the South increased 22,831,000 bushels, or at the rate of 86.6 per cent., while the increase in the rest of the country was at the rate of 37.1 per cent. Every State, except Louisiana, had an increase, the crop more than doubling in Kentucky, Maryland, Tennessee and West Virginia, and more than trebling in Missouri.

So, too, with hay the increase was at the rate of 64.5 per cent. in the

Hay, Tons.			
States.	1912.	1911.	
Alabama.....	288,000	293,000	
Arkansas.....	358,000	343,000	
Florida.....	51,000	51,000	
Georgia.....	316,000	288,000	
Kentucky.....	1,043,000	798,000	
Louisiana.....	234,000	195,000	
Maryland.....	575,000	556,000	
Mississippi.....	281,000	298,000	
Missouri.....	4,143,000	1,754,000	
North Carolina.....	281,000	304,000	
Oklahoma.....	446,000	267,000	
South Carolina.....	223,000	210,000	
Tennessee.....	1,154,000	925,000	
Texas.....	542,000	379,000	
Virginia.....	889,000	447,000	
West Virginia.....	1,062,000	446,000	
Total.....	11,926,000	7,254,000	
United States.....	72,425,000	54,916,000	

Hay—Yield Per Acre, Tons.			
States.	1912.	1911.	Ten-year average.
Alabama.....	1.38	1.40	1.66
Arkansas.....	1.25	1.15	1.48
Florida.....	1.25	1.30	1.38
Georgia.....	1.35	1.35	1.52
Kentucky.....	1.28	.95	1.33
Louisiana.....	1.65	1.30	1.81
Maryland.....	1.51	.72	1.24
Mississippi.....	1.40	1.50	1.60
Missouri.....	1.30	.60	1.27
North Carolina.....	1.30	1.05	1.48
Oklahoma.....	1.27	.80	1.23
South Carolina.....	1.15	1.08	1.34
Tennessee.....	1.30	1.00	1.47
Texas.....	1.40	1.00	1.48
Virginia.....	1.29	.64	1.21
West Virginia.....	1.35	.66	1.29

South and but 26.9 per cent. in the rest of the country, only Alabama and Mississippi having decreases. In much of the South, on account of the open seasons, permitting grazing for a long period of the year, the necessity for forage crops is not as great as in other parts of the country, and hence it is not surprising that more than half of the increase in the South was in Missouri. But it is significant that the crop in West Virginia and Maryland more than doubled, and nearly doubled in Virginia.

Tobacco, Pounds.			
States.	1912.	1911.	
Alabama.....	225,000	140,000	
Arkansas.....	520,000	480,000	
Florida.....	2,604,000	2,444,000	
Georgia.....	1,162,000	1,080,000	
Kentucky.....	349,272,000	303,600,000	
Louisiana.....	150,000	225,000	
Maryland.....	17,160,000	19,110,000	
Missouri.....	6,000,000	4,800,000	
North Carolina.....	108,500,000	99,400,000	
South Carolina.....	23,400,000	11,016,000	
Tennessee.....	67,340,000	62,370,000	
Texas.....	140,000	195,000	
Virginia.....	110,400,000	128,000,000	
West Virginia.....	12,008,000	11,250,000	
Total.....	698,941,000	644,110,000	
United States.....	959,437,000	906,109,000	

Tobacco—Yield Per Acre, Pounds.			
States.	1912.	1911.	Ten-year average.
Alabama.....	750	700	484
Arkansas.....	650	600	628
Florida.....	840	940	776
Georgia.....	830	900	728
Kentucky.....	810	880	835
Louisiana.....	300	450	491
Maryland.....	680	735	664
Missouri.....	1000	800	812
North Carolina.....	620	710	636
South Carolina.....	690	810	746
Tennessee.....	700	810	753
Texas.....	700	650	635
Virginia.....	600	800	750
West Virginia.....	760	750	729

About 73 per cent. of the tobacco of the country is raised in the South. Kentucky alone raised this year 349,272,000

pounds, or nearly 50 per cent. of the total crop of 698,941,000 pounds in the South, and 36 per cent. of the total crop of 959,437,000 pounds in the country. The increase over 1911 in Kentucky was 45,672,000 pounds, while the increase in the whole South was 54,831,000 pounds, or at the rate of 8.5 per cent. In the rest of the country there was a slight falling off in the total production.

#### A NEGLECTED SOUTHERN ASSET.

The North Carolina Fisheries Association, at its meeting next week at Washington, in that State, has an opportunity to emphasize the importance of an asset of the South which has been more or less neglected. In the past thirty years, with production on other lines dependent upon natural resources increasing to a notable degree—in farming, nearly four times; in lumbering, more than five times; in manufacturing, more than six times, and in mining more than twenty times—Southern fisheries have not doubled their output. They are yielding to the value of only about \$20,000,000 a year. The comparative slowness of their development has been accompanied, for the most part, by short-sightedness as to the maintenance of them, especially in the case of oysters and in the case of fish which seek fresh-water streams for propagation. Properly handled, the fisheries may be made an enduring source of cheap and nourishing food. They have not been properly handled in North Carolina, and the dwindling supply of edible fish, clams, oysters and other sea products in the waters of that State has been made the subject of investigation by the Geological and Economic Survey. Dr. Joseph Hyde Pratt, the head of that Survey, traces the decline to insufficient laws for the protection and regulation of the catch of fish and oysters and the non-enforcement of laws on the statute books. In an interview in the Asheville Citizen he says:

The falling off in the catch of fish is not due to the use of any particular kind of apparatus, but to over-fishing and the use of fishing apparatus in places where it ought not to be used. Hundreds of thousands of small fish have been caught, which, if allowed to remain in the water, would in a year or two become valuable edible fish. The small fish caught in this way are often dumped on the shore and used as fertilizer, or shipped to market with a faint hope that they may be marketable, but in most cases they are thrown out by the dealer as unsalable. If the small fish are destroyed (by whatever means), it is a self-evident fact that it will not be long before there will be a scarcity of large ones; and finally certain fish will become extinct in the North Carolina waters.

It is possible to protect and perpetuate our fish and oyster industries by the enactment and enforcement of adequate laws. I believe that the only adequate method of enforcing State laws and fostering our fishing industries is through the operation of a State Fish Commission having jurisdiction over all the counties of the State. The work of such a commission should not be only to see that the laws are enforced, but it should be able to carry on investigations relating to the fishing industries; to study local conditions and be able to render just decisions in regard to the best policy to pursue for the perpetuation of the oyster and any other type of fish with the idea of subserving the best interests of the State. Up to the present time the fisheries have been considered as merely local matters, while as a matter of fact they do not belong to any county or section, but to the State as a whole, and the best results can only be obtained when the fisheries are thus considered.

The North Carolina Geological and Economic Survey has been and is still carrying on investigations relating to fish and oyster protection and cultivation of the oyster, clam and diamond-back terrapin. The suc-



cessful cultivation of all three of these products would net a large income to the State, whereas at the present time it is a negligible quantity. The result of the work of the Geological Survey has been to establish a fish commission whose jurisdiction is only over a few counties of the State, and the passage of an act by the Legislature which makes possible the cultivation of the oyster in North Carolina. The investigations of the Survey with regard to the oyster have proved rather conclusively that it is both practicable and profitable to cultivate this seafood.

We North Carolinians are too apt to merely consider and be interested in local conditions—those which affect our own county, township or town—and do not realize that we are citizens of a State, and that whatever operates to the detriment of any portion of the State affects every other portion, either directly or indirectly. The great difference in the topography of our State and in the industries resulting from these varied conditions has a tendency to sectionalize, so to speak, the western, middle and eastern portions of the State, and it is rather hard to enlist the sympathies of the mountain folk in what affects the welfare of the men on the coast. If we are, however, to build up a great progressive State, one which is to reap in the fullest measure of the abundant wealth with which nature has endowed it, the citizen of the mountains must consider the natural resources of the coast, and the man on the coast must have regard for the conservation of our mountain resources. We are mutually dependent and citizens of a State, and we want our Legislatures to realize this and be statesmen enough to consider the welfare of the State before that of any particular section.

What Dr. Pratt has to say of North Carolina fisheries is applicable to more than one other Southern State on tide-water. In a certain sense the fisheries have been regarded as a hand-to-mouth enterprise, with a limitless ocean to draw upon, but the decline in the oyster industry in Maryland and the failure to fisheries in other States to keep pace in production with the growth of the natural demands upon them have aroused the attention of disinterested students, who perceive in present methods the sure means of reducing the value of the fisheries to a minimum, if not of practically destroying them. Not only must economy be practiced in catching sea products, economy strictly observing the laws assuring the life of under-sized fish and oysters, but provision must be made for assisting nature in propagation.

#### THE SOCIAL SIDE OF INDUSTRIAL TOWNS.

From time to time in recent months the MANUFACTURERS RECORD has referred to the unfolding of the model town of Corey, Ala., built from the ground up and embodying the best results of the application of the science of landscape architecture. The design of Corey was made by George H. Miller, landscape architect, of Boston, Mass., who has also designed other towns in the Birmingham industrial field, some of which are soon to be under construction. Mr. Miller's equipment for work of the kind has been acquired in years of practice in the Pittsburgh iron and soft coal center in the iron fields of Michigan, and in the designing of civic improvements for Wilkes-Barre, in the heart of the anthracite region of Pennsylvania. In the Birmingham district his work has included both cultural improvements in the suburbs and the perfecting of physical conditions bearing upon the social side of industrial undertakings. The latter problem has been considered in the laying out of the new town for the Kaul Lumber Co., in Alabama, which is described by Mr. Miller in some detail on another page of this issue.

## West Virginia's Era of Prosperity.

[Special Correspondence Manufacturers Record.]

Charleston, W. Va., November 20.

The State of West Virginia as a whole has probably never approached the opening of a new year with brighter prospects for good business in all lines than now appear in the perspective for the 12 months of 1913. Factories and furnaces, mines and mills are working to their capacity, as a general thing, and on every hand plans are being laid for new developments and increased output. In the various oil districts and gas fields the product keeps up well, and several of the fields already showing good production are being widened and extended by new wells drilled in. Agriculture in the State has recently been given a new impetus in the way of trucking and fruit growing and the rapid expansion of the tobacco-growing business in the southwestern part of the State. The single shadow thrown upon an otherwise perfect prospect is the strike of the miners in the Cabin Creek and Paint Creek coal fields of the Kanawha district, and this, bad as it is, and expensive as it must prove to the miners, the operators and the State at large, has so far been entirely local, confined to a comparatively small area, and seemingly not destined to spread to any very great extent.

With the exception of the coal territory rendered idle by the strike mentioned, the mines of the State are busy, prices are good, and the operators are enjoying the anticipation of a big year. The railroads serving the Pocahontas and Flat Top regions—the Norfolk & Western and the Virginian—are pushed to capacity to take care of their freight offerings, the only question to be considered at present being that of supplying cars in sufficient numbers. The New River region and the Kanawha region south of the river—with the exception of the strike area—are keeping the Chesapeake & Ohio busy, while the mines north of the river are furnishing the Kanawha & Michigan all the coal it can handle. In the Fairmont field, in the Roaring Creek region and the country served by the Western Maryland the question of car supply is the only uncertain factor, and the service so far has been such as to keep all the mines running at a fair rate of speed. The promise of continued prosperity in the iron and steel business and of manufacturing generally imbues the coal producers with hope of continued demand, and there is a distinctly optimistic feeling among them.

The lumber business throughout the State is in excellent condition and the mills generally are running to capacity. Big developments are in process in several localities—notably that of the Raines interests now building a railroad into the Meadow River section—and others are booked for an early start. The standardizing of the West Virginia Midland Railroad from the Baltimore & Ohio at Holly Junction into the heart of Webster county will open up a large timber area and set a number of big mills to work in cutting the timber from a vast area of virgin forest, while other developments in the same section by the Cherry River Boom & Lumber Co., which will soon attack a 70,000-acre tract purchased from the Baltimore & Ohio Railroad, and by various interests on the Coal and Guyandotte rivers, will

keep the lumber business well to the fore for a number of years to come. When the price of first-grade wide poplar was carried to \$150 a thousand feet two or three years ago by the demands of the automobile business, it was feared there would be such a reaction that purchases of timber lands made with that price in view would bring losses to the purchasers; but the prices, while not maintaining their highest level, have kept up well, and the owners of good tracts of West Virginia poplar have no room for worry or complaint. The prices for oak and other woods have also maintained a satisfactory level, and the lumber business is among the most prosperous of the State's industries.

The iron and steel plants at Follansbee, Wheeling, Morgantown, Clarksburg, Parkersburg and elsewhere report conditions satisfactory, and the glass factories at these points and at Charleston and elsewhere are for the most part running full-handed. At Fairmont an old plant which has been idle for years was recently taken over by local capitalists and leased to the Monongah Glass Co., which will operate it, while new glass plants are being erected at Cedar Grove, a few miles above Charleston; at Dunbar, a few miles below, and other points throughout the State where gas abounds. The potteries in the "Northern Panhandle" are all going full blast, and the refractories plants throughout the State generally report business good and orders plenty. Manufacturing establishments of all kinds—the car works at Huntington, the great axe factory at Charleston and the hundreds of miscellaneous industries scattered about among the various localities—all seem to be enjoying an era of unsurpassed prosperity.

The oil pool struck a year ago at Blue Creek, 14 miles northeast of this city, is not holding up to its early start by any means, and no gushers sending out thousands of barrels daily are now reported, but the field has settled down to a steady production that yields many thousands of dollars daily to the wealth of the well owners, while the extent of the pool has been shown to be much greater than was at first thought, and the hundreds of wells already put down will increase to thousands before the field can be said to be fully developed. The Griffithsville, Roane county and other fields are showing new producers right along, and the oil production of the State will at least show little or no diminution for some time to come.

In gas West Virginia shows no sign of a falling off. It seems that there is hardly a section of the State in which gas is not found, and in a number of them the yield is of the greatest abundance. At present the biggest productions are found possibly in the Harrison and Lewis county fields and in the section surrounding Charleston practically on all sides. Hundreds of millions of feet daily are piped from the wells in each of these regions, by far the larger portion being taken outside the State for consumption. In some places, however, local people have secured and held control of considerable production with a view to conserving it for consumption at home, and are offering it at attractive prices to such manufacturing enterprises as will establish their plants near the point of the gas production. Notable among the localities thus looking to gas conservation for home use are Huntington and Dunbar. At Huntington the people of the city have

formed a corporation with \$200,000 capital which has secured control of an important gas field, the product of which is being piped to the city for use in manufacturing purposes. It will be used as an inducement for manufacturing plants to locate there, and is expected to be of potent influence in bringing them. At Dunbar, a manufacturing town located on the Kanawha River six miles below this city, the same plan is being followed, except that the gas has been purchased and will be controlled by the promoters of the town, the leading spirit among whom is Col. Fred Paul Grosseup of this city. Colonel Grosseup has recently purchased a considerable field lying south of Dunbar and is having the output piped to that place, where manufacturing plants will be given the advantage of cheap fuel.

The most rapid development now being made in the State, however, and this without disparagement of any other, is in agriculture. West Virginia has long been known as an agricultural State of more than fair possibilities, with a wealth of grasses growing wherever the sunlight was let to the soil, with a wide area of lands that produce well of the grains, and with great potentialities in fruit production, but it is only in the past half-dozen years that the attention of men with money could be turned from the mineral and timber resources of the State long enough to be taught its agricultural possibilities. Now that their attention has been thus directed, considerable progress is being made in the matter of agricultural development, and the prospect is good for a continuation of that progress until the State is given high rank among the agricultural Commonwealths.

I wrote recently of the orchard development being made in Hampshire county by the Twin Mountain Orchards, a company composed of Fairmont and Baltimore capitalists, which will continue planting until it has 120,000 trees. This company, as shown in my letter, will put in a pre-cooling plant and a big cannery to handle its own products and those of other orchards. A different company, composed of practically the same people as compose the orchard company, is building a railroad from Keyser 26 miles to the Twin Mountain Orchards. This is an important development, but it is by no means the only important one now under way in West Virginia. Throughout the counties of Hampshire, Mineral, Morgan, Berkeley and Jefferson thousands of trees are being planted each year, and a beginning has but been made. Nor is the orchard business confined to these counties. Along the Ohio River, where farming has been carried on for a century, and where each farm had its own orchard, scores of old orchards have been bought up recently, and by the adoption of scientific methods of pruning, cultivating and caring for the trees have not only been restored to the productive capacity of their most vigorous days, but have been made to yield far beyond any amount they ever yielded before. And not only so; the fruit they bring forth is of a much better class than they ever brought forth before. I know two or three of these old orchards from which sufficient fruit has been secured in one year to pay purchase price and cost of restoration, care and marketing. Some big fruit developments in Pocahontas county are also in contemplation, and another highly productive orchard section will doubtless be developed there.

A number of large trucking developments are on the way or in prospect in various portions of the State, and those who have given the matter careful study expect them to prove successful in the

highest degree. The lands are well adapted to produce the best of the trucking crops, the seasons are right for them, and the market is close at hand. The most important of these contemplated developments is one near Morgantown, in which many thousands of dollars of capital will be engaged and the operations of which will be very extensive. About the coal regions and in the vicinity of the important manufacturing cities of the State there are most attractive opportunities for the trucking business, and the wonder is that men of money have not before this seen and seized them.

In a number of counties bordering on the Ohio River, in the southwestern part of the State, and in several not so bordering, but lying in the same general section, the production of Burley tobacco has become of great importance during the past three or four years and is rapidly growing. In Huntington two years ago a tobacco warehouse was established which in its first year handled 10,000,000 pounds of tobacco. Since then its business has grown to much larger proportions, as has the business of several other warehouses in the same city and in other points in the same territory.

The hilly contour of West Virginia and the many never-failing streams that flow down from its mountain sides make it notably rich in possibilities for the development of water-powers, but the cheap fuel in which it abounds has rendered such development unnecessary to such a degree that I can recall but one important hydro-electric plant in the State, that at Kanawha Falls, where only about 5000 horse-power out of a far greater possibility has been put to use. Now, however, there are some big developments on the way. The Kuhn interests of Pittsburgh are throwing a dam across the Cheat River near Morgantown, just inside the line that divides West Virginia from Pennsylvania, and will develop some 200,000 horse-power. This is intended for use in Pittsburgh, and possibly in Morgantown and other nearby places. The Appalachian Power Co. is making a big development on New River, just across the border in Virginia, but with a view to using a large part of the power in Bluefield and throughout the coal fields on the Norfolk & Western in this State, and at Richmond Falls and other points on the New River inside West Virginia other developments of high power are being or will soon be put under way. These developments will have much to do with increasing the State's importance in manufacturing, for while there is a great deal of cheap coal and unmeasured quantities of cheap gas in the State, the demand for both is so great that it will be more economical to make use of the power developed from water inside the State and let the coal and gas go elsewhere than to use the coal and gas here and let the water-power run to waste. So much cheaper, indeed, is water-power that electricity will be carried from the dams to many of the coal mines to furnish them with power, the while they ship their coal to localities less favored by nature.

I have attempted to sketch here in the merest outline some of the reasons for the prosperity that seems to have spread itself over West Virginia—it would take much more time and much more space than can be here devoted to it to fill in the detail of the picture. Every community is alive, every city awake, to the wonderful opportunities for advancement that lie within easy reach of all, and the next year, and the next several years, will undoubtedly witness an unparalleled growth in this remarkable State.

GEO. BYRNE.

### SHREVEPORT BUILDING.

**Million and a Quarter Dollar Mark Passed During First Ten Months of This Year.**

[Special Cor. Manufacturers Record.]

Chamber of Commerce,

Shreveport, La., November 21.

Building permits issued during the first 10 months in this year total \$1,353,917, as compared with \$1,170,415 for the first 10 months in 1911.

That Shreveport's past record for progress is being maintained is shown by the fact that the period mentioned above, 10 months, witnessed \$93,755 more in permits issued than during the entire year of 1911. The total for 1911 was \$1,250,162. Judging from building permits issued, the growth during the last decade will be surpassed during the present one. From a population of 16,013 in 1900, Shreveport increased to 28,015 in 1910.

This city now has a population of 33,805, according to an exhaustive house-counting census made by the Cumberland Telephone Co. during the summer. Taking these figures as a guide, the Cumberland Telephone Co. is planning its future work so that it will be able to handle a city of 86,000 people in 1925. Shreveport's importance as a telephone center is evidenced by the new heavy copper circuits recently strung between there and New Orleans, Houston, Dallas and Little Rock. Only a few months ago a Chicago electrical company bulletined the statement that the largest telephone cable ever built in the world was laid in the Mississippi River between Vicksburg and the Louisiana shore to afford Shreveport better connection with the Southeast.

E. L. McCOLGIN, Secretary.

### Deep Water at Charleston.

The people and the press of Charleston, S. C., are enthusiastic over the recent visit to that port of the Atlantic fleet of American battleships in command of Rear-Admiral Hugo Osterhaus. Says the *Evening Post*:

"Nearly seven years ago the late Rear-Admiral Dickens brought a small squadron of the American navy to Charleston harbor and directed its maneuvers in these waters for a period of several months. After close observation and thorough trial of Charleston's accommodations, he declared, in a public utterance, in the presence of the Secretary of the Navy, that a fleet of battleships drawing 26 feet of water could be anchored in this port and have plenty of water for their comfort and facility. In the same year Commander Cameron McK. Winslow, commanding the cruiser Charleston on the voyage of that vessel to this city to receive a gift from her municipal namesake, in a letter to the editor of the *Evening Post* on the facilities of the port, stated that there was no reason why vessels drawing 30 feet of water should not enter and leave Charleston harbor with ease and safety.

"Today a fleet of battleships is anchored in the bay, and there is room enough for three times as many more as are now within the harbor. The ship of least draft draws 26 feet of water, the controlling draft named by Admiral Dickens. The deepest draft vessel draws 29½ feet. Every vessel in the little squadron commanded by Admiral Dickens has been retired as obsolete, and the gallant officer himself has passed away. Commander Winslow, now flying the flag of a rear-admiral of the United States Navy, led the fleet that came into Charleston yesterday and saw his own estimate of the capacity of this harbor amply verified.

"The ships that came into Charleston yesterday are among the greatest vessels

of war afloat. They are very costly structures and of heavy tonnage. They need plenty of water, and no risks are taken with them. There was no occasion to hazard them, and they would not have been sent into this port if there had been any fear by the Navy Department that they could not be accommodated. They came in on a neap tide and with a north wind, conditions not calculated to increase the depth of water in the bay. Four of them came in an hour before high tide, when there was yet a foot of water to rise. Not one was eased off from the speed of entrance to port. Not one was retarded in any movement by lack of water under her keel. The North Dakota, drawing 29½ feet, carried four and a half feet of water under her deepest keel. They slipped into Charleston harbor without a halt or a hamper, and dropped their anchors in the bay at their severally appointed stations.

"We have been talking in these parts, up and down the line of the South Atlantic Coast, for a generation or more about deep water and harbors, and all sorts of contentions have been made, in good spirit or otherwise, over harbor capacities. Let us all stop talking for a week and look. At anchor in Charleston harbor are 11 battleships of the United States Navy, drawing from 29½ to 26 feet of water. That is our exhibit. What has any other South Atlantic harbor to show?"

The *News and Courier* publishes the following interview with Rear-Admiral Osterhaus:

"We had not less than 33 feet of water when we entered port by way of the new channel last Sunday," said Admiral Osterhaus; "this, too, at the season of lowest tides, when the moon is in apogee, speaks volumes for the port. It is a magnificent harbor.

"I was surprised when we entered Sunday morning to find such depth of channel. Harbor improvements are always in progress, and the entrance to Charleston harbor can be made sufficient to accommodate warships of any draft that will probably be built in the near future. I was with the White Squadron when it was maneuvering off the coast some years ago, and I had opportunity then to note the excellence of Charleston's harbor. It has been greatly improved since, and I hope that when I come again it will be as much better as its present channel conditions are over what they were then.

"The navy-yard is a big asset to Charleston, and I am glad to hear that there is so much work going on there. Keep plenty of work and the navy-yard will continue to grow. I think the location is most picturesque. The grove about the commandant's quarters is one of the most beautiful spots I ever visited. As I stood there beneath the great oak trees, with their magnificent spread of moss-draped boughs, I thought how much I would like to live in such a place. I would like to have a home at the Charleston navy-yard. When we got in port I asked someone where the navy-yard was, and they pointed up the river. I could see only what appeared to be woods; I had no idea of the beautiful surroundings that lay concealed behind the tree-fringed shore. We are not in the habit of looking for navy-yards in the woods, but I want to say that in the grove up the Cooper there is a naval station that can boast one of the prettiest parks to be found anywhere.

"It is refreshing to us to note the public-spiritedness of the citizens in welcoming and entertaining the fleet. It is the proper spirit and one that I hope will grow and find emulation throughout the

country. I have not had opportunity to see much of the city, but what I have seen impressed me favorably. We have been too busy enjoying the hospitality of your loyal citizens as yet to take in Charleston, but there are some places in this historic old town that I would like to see before we sail away next Sunday afternoon. One day this week some friends will carry us out bird shooting, and then we will have opportunity to see something of the hinterland as well.

"Just say for me that we are delighted with Charleston, and wish to express our appreciation of the kindly interest your people seem to take in the navy."

### BIG PLANT FOR VALDOSTA.

**A \$300,000 Company to Make Paints, Varnishes, Etc., from Yellow Pine.**

[Special Dispatch to Manufacturers Record.] Valdosta, Ga., November 20.

The American Chemical Co., headquarters in Toledo, O., has purchased site and will locate a factory for paints, varnishes and floor stains from the products of pine logs and stumps. Dr. A. O. Albright of Toledo is president of the company, which will employ a capital of \$300,000 and 200 men. Will manufacture 20 different products from yellow pine. The company has bought seven acres within the city limits, and has option on six acres additional. It is understood work on the plant will begin within six weeks. Main office in Toledo, O., with factory and refinery in this city.

### Some Sugar History.

Editor Manufacturers Record:

The average American voter who sweetens his cup of breakfast coffee has a vague idea that he is using sugar extracted from cane grown in some tropical climate. Political papers know but little of sugar history and the part it plays on the world's political stage.

At the time the "Little Corsican" was commanding the armies of France and wearing the insignia of an Emperor, Great Britain and Spain controlled most of the sugar-producing world. An order from these nations to prohibit sugar shipments to France was a possibility. The Great Napoleon ordered the French scientists to produce sugar from beets, and the order was obeyed.

During the past century the political situation of the European States has given birth to a child that is named "Beet Sugar." Every State of any extent from Sweden to Italy is safeguarding home interests by growing beets and manufacturing sugar. This has been done through protective tariffs and bounty on exports. Today the world's yearly sugar supply is 16,000,000 tons, and of this supply the sugar beet produces more than half.

The yearly sugar consumption by the United States is 3,000,000 tons, and the sources of supply are as follows: From sugar beets, 600,000 tons; from Louisiana and Texas cane sugar, 400,000 tons, amounting to one-third of the consumption; 1,000,000 tons come in from our colonial possessions free of duty, and 1,000,000 tons paying import duty amount to \$50,000,000 comes from Cuba, Java and Germany. The Sugar Trust views with apprehension the growing of beets and the manufacture of granulated sugars. Hence its interest is in accord with the democratic "free sugar" minority.

The incoming political party will not depart from the general custom of nations. Based upon the American wage scale, sugar is retailed to consumers here cheaper than in Europe.

A. E. KENNEDY.

Monroe, La., November 20.



# An Industrial Town on Model Lines.

By GEORGE H. MILLER, Landscape Architect, Boston.

When the expert investigators of the Russell Sage Foundation go into the Birmingham section again to show up the weak points that exist in the social conditions directly relating to industry, they will discover in at least one certain little town an answer to the usual criticisms. Down near Tuscaloosa there is quickly being framed into shape an industrial village, a town, a city extension, or what you will, that will provide the housing, living conditions and physical environment for the employees of the Kaul Lumber Co. of Birmingham. The movement for this sort of thing in the Birmingham region is not the result of the philanthropic criticisms on Birmingham published in the survey; in fact, the movement started with the building of Corey before the Sage Foundation representatives visited Birmingham, and while some of the social conditions connected with Birmingham can be found fault with from the point of view of the philanthropist who does not pay the bill, yet, on the other hand, an investigator who is looking for evidence of real scientific constructive improvement, aimed to increase dividends instead of making dividends prohibitive, will find that the Birmingham section is contributing example to the rest of the industrial world. It will be recalled that that which was done in the town of Corey not only withstood every criticism of the experts, but furnished new light to those who knew anything about its problem, and the same will be true of certain mining towns that are soon to be built in the Birmingham section. This is because the policy that is being adopted is on a business and scientific basis, and not one of mere charity.

Some industrial operators have been slow to recognize that the improvement of the towns in which employees are housed is a good business proposition, but the more progressive and prosperous operators are beginning to realize that times are changing, and that stagnation means retrogression. The old idea is that labor would not appreciate desirable conditions, and yet that's the point. There is a wide supply of both good labor and worthless labor, but a progressive concern like the Kaul Lumber Co. does not want the poor labor; it wants the kind of labor that will appreciate the desirable conditions which it has to offer in its town, letting the poor labor go to any competitor who may have less faith in workmen. The company is providing conditions that will attract the kind of labor that appreciates desirable conditions, and only that kind will be accepted for work in the lumber plant. The company accepts as good conservative policy that of investigating new codes of things; of not taking for granted permanently the old-line sort of thing that has been done over and over again. Too often in short periods the costs of impaired efficiency of workmen, due, among many other things, to the effects of malaria, hookworm or other diseases, are very much greater than the cost of preventives, and therefore it becomes a good investment to assure that the sources of infection will be known and screened from disease-carrying flies, that mosquito-breeding spots be drained, that unpolluted water be provided, and other improvements be made.

This does not mean that desirable conditions are being created with blind extravagance. The fact is that the subject of what to provide and what not to pro-

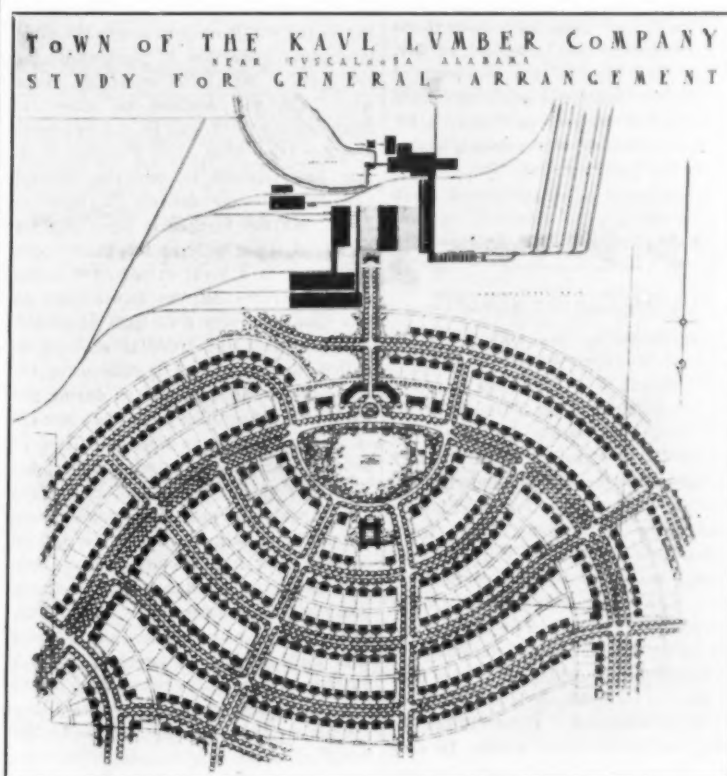
vide, and the reasons why, are reduced to a scientific basis. Those familiar with the subject of scientific management as applied to shop, mill, mine, yard, all operating ends of an industry, and with the revelations of Mr. Frederick W. Taylor and Mr. Harrington Emerson, know that the principles of scientific management, whether or not under that name, have a large bearing on success in industrial production. These principles consider working conditions, consider the workman at work, while he is within the mill gate, and for the purpose of making it possible for him to deliver the greatest percentage of his potential ability in work. But heretofore scientific management has not given attention to the preservation or creation of fitness for work in those non-working hours

ciency of labor, and if the same sort of progress continues the results will through time surely discount the handicap suffered in the imperfect quality of the raw materials of which the region has such an abundance.

Thorough study in the designing of the town of the Kaul Lumber Co. was accepted as no more than a business precaution, to get up-to-date information about all phases of modern town building before the work was undertaken. The consequences are that, from a real estate point of view, the plans provide for a tying in with the plan of Tuscaloosa in such a way that in the future best land values will be realized. The scheme also provides for expansion, thus taking care of a possible increase in the number of employees in the Kaul mill or the employees of by-product mills, which, no doubt, through time will develop and for which strategic sites and shipping facilities are laid down. The town plan properly provides for most advanced conditions, such as drainage and sanitary sewers, water, gas, electric lights,

bathrooms and closets, and a very attractive interior patio. It cost less to build this hotel following desirable lines than it would have cost to have built the customary carpenteresque type.

The town is located as near the extensive lumber plant as the underwriters would permit. The axis of the town is perpendicular to the long lines of the mill buildings, and on it is the 80-foot-wide mill entrance street, and from which, looking toward the mill, will be seen an arbor sent under shade trees framing the base of a 125-foot water tower. From this road, which leads to the civic center, there is a separate passage to the negro quarters. A distinctive scheme of planting will accent the architectural rigidity of this emphatically formal straight line on which the whole town scheme balances, will frame the view to the mill buildings and make the approach pleasant and inviting. The commissary and office buildings, located nearest to the mill, with which they are more or less associated, and within easy access to a road to the negro quarters, will take an octagonal form at end of mill-entrance road, and, together with a church, a school and a hotel, are designed as a unit and form the civic group. Pergola extensions of the two main buildings make a shelter gateway, from which the direction of travel follows two drives about a semi-circular open space containing a drinking fountain and flagstaff, thus forming a public square at a slight elevation overlooking an open area reserved for possible park and playground purposes. This central open area divides itself into three parts. One is the great central, open athletic field, around which paths lead from the mill entrance and all streets; the splendid existing tree growths which has been saved, together with the tree and shrub masses proposed, will form irregular edges of soft foliage, while the walk encircling the field can also be used as a running track, and therefore is kept in front of site for a grandstand on a sloping hillside. The other two divisions of the proposed central park area are, first, a portion in which attractively curving paths lead through ornamental planting, which shuts out the road on one side, and on the other surrounds an open space to be used for varied games by adults; second, a children's playground near schoolhouse location, in which a shelter is provided where mothers may sit in the shade and watch children playing in the wading pool below or using playground apparatus in adjacent open spaces. This area also is surrounded by ornamental plantations through which lead winding park paths. From this park wide highways, which eventually may become boulevards of the city of Tuscaloosa, extend by long, sweeping curves on one side in a diagonal direction toward Tuscaloosa center, on the other through a beautiful woodland hollow to the railroad station, thus extending a parkway throughout the length of the town by two wings of the central park area. An extensive scheme of tree and shrub planting has been worked out for all streets and fronts of cottages. The cottage designs are an application of the California bungalow type, with roofs sloping toward the street. In these is space for halls, closets and a future bathroom. Vine trellises will shut off the view from street into rooms, and flower boxes, taking the place of porch rails, will accommodate plants that are too often seen hanging in tin cans. The material of construction in the different cottages will have many diversifications, and, purposely being unplanned, will take the somber tones of different color stains, selected to give individuality to each



when there is being determined the potential ability to work. Therefore, it is plain to be seen that scientific planning of industrial towns becomes an important and essential complement to scientific management in industrial operations. This viewpoint and work being effectively introduced there first is becoming associated with the Birmingham district, and it is said that the efficiency of labor in one new town in that region has been increased 25 per cent. in a very short period; but, of course, operators are not advertising results. The process is not only by attracting the most desirable labor, but by providing conditions that will contribute toward the upbuilding of the required kinds of strength, skill and will in the workman; that will enable him to give more to his employer and thus get more for himself. Every feature in such a town is designed to have some constructive influence for specifically benefiting the workman in his work, and he gets nothing he does not pay for, thus eliminating the element of paternalism and philanthropy. As has been pointed out again and again, the more widespread adoption of scientific town planning in the Birmingham section is tending to increase the sorely-needed effi-

ciency of labor, and if the same sort of progress continues the results will through time surely discount the handicap suffered in the imperfect quality of the raw materials of which the region has such an abundance. Thorough study in the designing of the town of the Kaul Lumber Co. was accepted as no more than a business precaution, to get up-to-date information about all phases of modern town building before the work was undertaken. The consequences are that, from a real estate point of view, the plans provide for a tying in with the plan of Tuscaloosa in such a way that in the future best land values will be realized. The scheme also provides for expansion, thus taking care of a possible increase in the number of employees in the Kaul mill or the employees of by-product mills, which, no doubt, through time will develop and for which strategic sites and shipping facilities are laid down. The town plan properly provides for most advanced conditions, such as drainage and sanitary sewers, water, gas, electric lights,

house, and yet conform to a pleasing town scheme. The equal spacing of cottages will be very pleasing in appearance when seen in the perspective on streets following attractive curves, and while the esthetic has been a consideration secondary to the economic and utilitarian, yet it will be valuable in enlisting the civic spirit and home pride of the workmen. Mr. John L. Kaul, the president of the company, says:

"We have given the subject consideration for the purpose of having in advance a comprehensive plan for our mill and townsite. While a very small portion of the scheme will as yet be put into actual execution, it is our intention to use the plan as a basis and work to it whenever improvements are made from time to time. It may be a period of four or five years before the plan is carried out completely. For instance, the area that can be used for park purposes will no doubt be developed through cooperation of the company and its employees."

#### STUDIED BY FINANCIERS.

##### Southern and Southwestern Territory of the Frisco Inspected.

[Special Cor. Manufacturers Record.]

Fort Worth, Tex., November 18.

Seventy-five representatives of the leading banking and brokerage firms handling the various securities of the Frisco system from the leading financial centers of the world, namely, London, New York, Chicago, St. Louis, San Francisco, Toledo and other large cities, are being entertained in the South and Southwest by the citizens of the various places they are visiting on a 10-day trip from St. Louis to New Orleans. The purpose of the visit of this body of representative financiers to this part of the South is to inspect the lines of the Frisco system and look into the vast possibilities of the territory traversed by it.

The party assembled at St. Louis, and today a week ago left that point on a special composed of 10 Pullman cars for Memphis, the first stop of the itinerary. After being entertained for 12 hours at Memphis the party went to New Orleans over the Illinois Central. At New Orleans some time was spent in inspecting the terminal facilities of the Terminal Properties Company. Later a special boat was chartered by the citizens and a trip up the Mississippi was taken. Leaving New Orleans, the next stop was made at New Iberia, where the special was switched off to the New Iberia & Northern Railroad, a line connecting with the Frisco at New Iberia and running south to the Gulf, with its terminus at Port Barre. The whole day was spent on this road to give the visitors an opportunity to see the large sugar-cane and lumber industrial activities. Leaving New Iberia, the party went directly to Houston en route to Brownsville over the St. Louis, Brownsville & Mexico Railroad. At Brownsville the party was entertained as usual with the exception of a trip which was planned into Mexico, but on account of lack of time most of the members of the party only went across the border and came directly back. At Corpus Christi, though in the middle of November, the train stopped for its passengers to take a dip in the surf. Over Sunday the party was entertained at Houston. Arriving at Fort Worth this morning, the guests were entertained before going on to Dallas, where they spent this afternoon. Springfield, Mo., is the stop scheduled after leaving Dallas, and there the party will inspect the shops of the Frisco system. The "special" will doubtless arrive at its original starting point, St. Louis, by Wednesday evening.

The manner in which the financiers were entertained here in Fort Worth was

characteristic of the receptions tendered them at the other stops on the road. The "special" was met at the depot by a committee from the Chamber of Commerce with automobiles. The members of the party were taken to the Westbrook Hotel, where a typical Southern breakfast was served. Capt. B. B. Paddock, ex-Mayor of Fort Worth, and honorary president of the Chamber of Commerce, made a brief address of welcome. Albert T. Perkins of the St. Louis Union Trust Co. and vice-president of the Frisco system, responded to the address of welcome in behalf of the party. He thanked the Fort Worth people for their reception, and said the party had been most favorably impressed with their trip through the South and Southwest. In closing he stated he was sure that the attention of the great financial firms represented in the personnel of his party will be turned toward this territory to the good of all concerned. As the guests left the dining-room J. A. Arnold, secretary of the Texas Commercial Secretaries' and Business Men's Association, gave each one of them a handsomely bound in leather copy of "Industrial Texas," an issue containing facts and figures on Texas, compiled by Mr. Arnold. The name of the recipients of the books were printed in gold on the front cover. This feature created quite a bit of talk, and was one of the most pleasing parts of the entertainment. Before leaving, the members of the party were taken for a motor trip to points of interest around the city.

ROY G. BOOKER.

#### FOR ORCHARDS' BENEFIT.

##### Special Work of the United States Weather Bureau.

Chamber of Commerce,

Raleigh, N. C., November 21.

The United States Weather Bureau is doing in North Carolina a line of work that has passed beyond the experimental stage. Recognizing the immense importance of the development of the fruit-growing interests in the upper Piedmont and high mountain regions, particularly apples, with which fruit North Carolina has won the biggest prizes at the national fruit shows, special orchard stations have been established, and 10 of these have been in operation since March 1, and six more are being equipped. Chief Willis L. Moore of the weather service is very deeply interested in this important movement, and has given particular directions that special care shall be given the matter in North Carolina, so that the fullest tests may be made. The weather stations thus established include all the important commercial orchards of apples, which rank among the largest in the South. The records from the 10 stations which have been in operation nine months are exceedingly interesting and important, and the results are very satisfactory.

Virginia, Kentucky and Massachusetts, which have been examining the new line of work in North Carolina, are calling on Chief Moore for the establishment of such special orchard stations in those States, Massachusetts desiring this line of work done particularly in the Berkshire Hills. The weather bureau sent to North Carolina Prof. H. J. Cox of Chicago to accompany Weather Observer Denson from Raleigh. The State agricultural department sent Horticulturist W. N. Hunt as a member of this party to inspect conditions and locate stations.

Stations have been in operation since March 1 at the following orchards: W. T. Lindsay, Tryon; State Test Farm, Blantyre; Charles A. Webb, Asheville; Bolling Hall, Waynesville (this orchard won the first prize at the recent North

Carolina State fair at Raleigh); A. J. Bagley, George and Julius L. Gragg, Globe (both in Caldwell county); Mrs. Moses Cone, Blowing Rock; S. M. Transou, Transou, Ashe county; Dr. Charles A. Willis, North Wilkesboro; Sparta Orchard Co., Mt. Airy.

The following are the special orchard stations, just established, to which equipment is now being shipped: N. C. Toms, Hendersonville; T. G. Harbison, Highlands; Charles G. Mincey, Ellijay, Macon county; A. M. Frye, Bryson City; Hiram Proffitt, Cane River, Yancey county; Holston Corporation, Altapass. Mr. Denson from the Raleigh station will go to all the points last mentioned and make the installations of the equipment.

FRED. A. OLDS, Secretary.

#### BIRMINGHAM IRON MARKET.

##### Sale at \$14.50 a Ton for Shipment to Genoa.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., November 25.

A sale of 5000 tons of No. 2 foundry for prompt shipment to Genoa, Italy, at \$14.50 per ton Birmingham was the most interesting attraction in pig-iron during the week. With this exception, sales were light and confined to immediate Southern territory, and in the aggregate was less than 4000 tons. For such business just referred to, requiring prompt and first quarter delivery, a basis of \$14.50 per ton furnace is being adhered to, and it is not believed this price would be shaded to a great extent on a round tonnage for the delivery mentioned. At this time it is very noticeable, the manifested interest the trade is showing in anticipating additional requirements for first and second quarters, as during the week several inquiries for round tonnages of 1000 to 3000 tons were submitted in definite form, one of which specified for 2000 tons of No. 2 soft and one for the same amount of gray forge for delivery through first half, but the matter is still pending, and local conditions are such that it cannot be stated with accuracy just what the price consideration will be, as the matter of quotations and delivery with the several local interests are still unsettled. The order-books of one of the large producers are in such condition they are not solicitous of any tonnage for delivery prior to second quarter, but for this delivery they are quoting \$15 per ton on basis of No. 2 foundry at furnace. Another is quoting the figures just referred to and confining delivery to first quarter only, while two others continue to quote \$14.50 per ton at Birmingham for prompt and first quarter. Since the establishment of present quotations the consuming interests have limited buying to an appreciable extent, and have refrained from contracting for more than actual requirements; however, indications are such that the present prices seem firmly established and the placing of additional tonnage for first and second quarter will be noted within the next week or two. The additional capacity scheduled for operation during this month has failed to materialize, due to the serious delay in assembling supply of raw material and the assurance that same would be maintained. It is now believed it will be during December before an increased production can be noted. In the face of this, shipments so far this month have moved at a good rate, and stocks on furnace docks and in warrant yards will show a noticeable decline as of December 1, probably aggregating between 70,000 and 75,000 tons available, which is not considered any too much when compared with the daily rate of consumption and production. The

charcoal iron market remains firm at present quotations, with trading comparatively light. For delivery in the remainder of this year and through first quarter of next we quote the following grades per gross ton f. o. b. cars Birmingham district furnaces, viz.: No. 1 foundry, \$14.50 to \$15; No. 2 foundry, \$14 to \$14.50; No. 3 foundry, \$13.75 to \$14.25; No. 4 foundry, \$13.50 to \$14; gray forge, \$13.25 to \$13.75; mottled, \$13.25 to \$13.75; standard basic, \$14 to \$14.50; charcoal iron, \$23 to \$23.50.

Activities reported in the local cast-iron pipe market were in the main for small requirements and maintenance work, the week being void of any orders for round tonnages. However, order-books are comfortably filled, and the small orders referred to are in the aggregate very satisfactory to local interests. Shipments continue equal to production, and no accumulation is noted. The market is reported firm, and following quotations on water pipe are being fully maintained per net ton f. o. b. cars here, viz.: Four inches, \$24.40; six inches and up, \$22.50, with \$1 per ton extra for gaspipe. Special fittings are quotable at \$50 to \$55 per net ton at Birmingham foundries, depending upon the nature and size of requirement.

With the exception of heavy calls for delivery and the offering of premiums for prompt shipments, conditions in the finished material market remain unchanged. For certain new business that is being placed with the Bessemer mill, delivery is not promised prior to April. There are no new additions to order-books of the Ensley mill, but it is understood the tonnage to be rolled at this plant will insure full operation throughout the first half of 1913. The Alabama City mill continues to operate at capacity, and is reported making a better showing than at any other time.

Dealers report the old material market very active in the past week, but with a noted cautiousness in the matter of actual trading. The demand for all grades show an increase, but with the exception of an advance of 50 cents per ton on light stove and plate scrap, quotations remain unchanged. The schedule below is considered to be a fair representation of the value of the several grades per gross ton f. o. b. cars here, viz.:

Old iron axles (light), \$15.50 to \$16.  
Old steel axles (light), \$15.50 to \$16.  
Old iron rails, \$15.50 to \$16.  
No. 1 railroad wrought, \$13.50 to \$14.  
No. 2 railroad wrought, \$11 to \$11.50.  
No. 1 country, \$9.50 to \$10.  
No. 2 country, \$8.50 to \$9.  
No. 1 machinery, \$11.50 to \$12.  
No. 1 steel, \$11.50 to \$12.  
Tram car wheels, \$11 to \$11.50.  
Standard car wheels, \$12.50 to \$13.

Light cast and stove plate, \$9.50 to \$10.

At present there is a strong demand for all grades of steam and domestic coal, and for prompt and open-order shipments premiums are being offered. The increased consumption during this season of the year and the serious shortage of railroad coal shipment is very demoralizing, as shipments are delayed some 20 to 30 days.

The shortage of anthracite has created a strong market for nut coke to be used as a substitute, and, accordingly, quotations have advanced 25 to 50 cents per ton on this product. During the week approximately 75 carloads were sold for prompt shipment to St. Louis territory. Furnace and foundry coke continue to show strength, and quotations on the latter product were also advanced 25 cents per ton.



# Mississippi River Regulation and Wet-Land Reclamation.

By EDMUND T. PERKINS.\*

Three political parties in their platforms of 1912 recognize the national aspects of the regulation and control of the flood waters of the Mississippi River. These three parties polled more than 14,000,000 votes at the Presidential election.

The plank of the Democratic party, which was successful at the polls, reads: "We hold that the control of the Mississippi River is a national problem; the preservation of the depth of its waters for the purpose of navigation, the building of levees to maintain the integrity of its channel and the prevention of the overflow of the land and its consequent devastation impose an obligation which alone can be discharged by the general Government. We favor the co-operation of the United States and the respective States in plans for the comprehensive treatment of all waterways."

So far as the regulation and control of the Mississippi as a national problem might ever have been a political question, it is now disposed of. It would seem that the verdict is so overwhelmingly in favor of having the Federal Government discipline its unruly rivers that the question need never become a partisan political issue. It never has been an economic issue; there never has been a time when anyone would question the statement that floods should be prevented and their attendant loss of lives and property done away with. From this point of view it always has been a question of expediency, a question as to whether the cost would exceed the gain, or as to whether it would be possible to do the work. The question of possibility has been disposed of. Engineering and construction achievements in all parts of the world in the last few years have shown, by inference, that the engineering skill and the constructive skill necessary to control and regulate the Mississippi and tributaries can be had.

The Mississippi River is 2446 miles long and has a drainage area of 1,242,650 square miles. This is two-fifths of the total area of the United States. The headwaters of its tributaries extend from New York on the east to Northern Montana on the northwest and into Canada on the north.

Yet, great as is the national problem of controlling and regulating the Mississippi, it is only a part of the problem of our swamp and overflowed land of approximately 75,000,000 acres, lying in almost every State. The vast benefits to be derived from the reclamation of this great area are too obvious to require comment. It is generally known that they possess wonderfully fertile soil capable of producing great crops for many years without defertilization to any marked degree.

The reclamation of the great bulk of these swamp and overflowed acres is largely dependent upon the control and regulation of the Mississippi and tributaries. From the headwaters of this great river system to its mouth, as in every other stream, it is not possible to reclaim or correct any one part without at the same time exerting some influence, for good or bad, upon some other portion. It is the same wherever we go. There is only one drainage problem in the valley of the Red River of the North, where the swamp lands are partly in Minnesota and North Dakota; one problem in the Okefinokee

swamps of Georgia, which must be drained across Florida; one problem in the Great Dismal Swamp of Virginia and North Carolina; one problem in the Sacramento Valley of California.

This is a natural fact. When we try to subdivide one of the problems and solve each subdivision from our own limited viewpoint and for our personal selfish interests we are making trouble for ourselves or someone else, or both. We are doing more—we are violating the laws of nature, which, before the arrival of man, established certain drainage basins and provided these drainage problems for us to solve.

Can we establish arbitrary boundaries, often in ignorance of existing physical conditions and ignoring natural problems and necessities, and say, "Here this political body shall have jurisdiction and here that one?"

No set of resolutions or legislative enactments can change the physical characteristics and drainage necessities of such an area as the St. Francis Basin, which man has decreed shall be partly in Missouri and partly in Arkansas.

How can the matter be adjusted under two interested jurisdictions? You may say that common purpose and mutual agreement will succeed. Where is your shining example? A third party, unprejudiced and uninterested, must arbitrate to obtain a logical and successful result, and between the sovereign States there can be but one common authority, which is the Federal Government.

A Southerner myself, I believe in the sovereignty of the State and the preservation of State rights, but not to the extent where logic and common sense show the fundamental creations of God in opposition to the red tape of human legislation.

Here is a problem that has been with us since our country was settled, but one that has continually been passed by. No longer should this be done; no longer can it be done—first, because it is a national question of health. Even if we are sluggards and would rather travel far off on seeming easy roads to wealth than to wrest the rewards of honest labor from our own lands, these same lands in their present condition are the greatest single existing menace to our public health.

Yellow fever seems to have gone, but it may come back; malaria is ever with us, a deadly blight to all human effort and life; no longer is it a question but that the mosquito, bred in these swamp lands and low, wet places, is the agent that perpetuates and disseminates these fevers. The National Government has spent money in huge sums to fight these plagues. Is it not far wiser, and constitutional as well, to spend money to prevent them?

Patriotic, sentimental and sanitary arguments are not needed to justify the reclamation of these swamp acres. A body of land as large as Ohio, Indiana and Illinois, and as rich, is unreclaimed and unfarmed, while there is a constant demand and search for more farming land. Until recent years there was a surplus of good agricultural land in the West that could be homesteaded at slight cost. The reclamation of the arid lands by irrigation did not supply the demand for more land, and as good farm acres became scarcer and values increased our farmers went farther afield, notably to Canada. Hundreds of thousands of our land-hungry

men have gone across the border, always shirking the reclamation of the lands that lay at their door. The end of the rainbow is always a long way off.

The peasant of Europe who dreams vaguely of a time at some far distant day when he may own the little patch he works so laboriously and patiently is not more land hungry than the average American, native born, foreign born, rural or urban dweller. We call it land-lust, but it is something far deeper. It is a longing, a hunger, based upon the fundamentals of human nature. Whether conscious of the fact or not, each of us still knows that upon the soil depends human life.

So it is a natural, normal thing for us to want land and to hunt for it, but it is not necessary to shut our eyes to the great possibilities close at hand and go chasing the rainbow far afield. There are fertile farms for a million families under the swamp and overflow waters; perhaps for more than a million families, since the soil is so rich that a small acreage is amply sufficient.

Our rural population is not keeping pace with our city growth; there has been a steady increase in the cost of food consumption, an increase more rapid than the gain in food production; and the high cost of living is the bogey man that's going to catch us if we don't watch out.

If Uncle Sam does not want to keep his good farmers and citizens, Canada will welcome them gladly—is doing so. But why should we let our good farmers be enticed into Canada or some other land? Not for lack of land. There is no such lack. There are millions, hundreds of millions of acres of good land in the United States unoccupied, uncultivated. There are more than 2,000,000 in Illinois lying idle that could be made to yield abundant crops if drained and reclaimed. Less than half of the land area of the United States is in the farm area, and of that, only a little more than one-half is cultivated. Our people do not flock to Canada because we are overpopulated. It has been estimated that the State of Illinois can furnish food to support 20,000,000; the population now is less than 6,000,000. There are vast areas of good farm land in Texas unoccupied; vast areas in many other States. Even in the New England and North Atlantic States there are large areas of unproductive land that can be made to yield abundantly.

I have been wandering over the United States for 27 years, inspecting and surveying lands. I am thoroughly convinced that there is no lack of land, and good land. There is plenty of wonderfully fertile land if we will only use our common sense—which is our engineering sense—and reclaim it. And the land for each to reclaim is that which lies in his back-door yard.

That is a matter of detail and not the general plan. Physical, economic, social reasons demand that the reclamation of these 75,000,000 acres and the control of the waters that overflow them must be undertaken in a broad and comprehensive way—in a national way. And this cannot be done offhand.

There is no cure-all, no panacea. Careful investigation and study must be had that there be developed a plan founded upon justice, equity and good engineering. It must be constitutional, and every beneficiary, nation, State, corporation, individual, must in due proportion bear the expense. With the insufficient data available I would hesitate to accept or reject at this time any particular plan.

There is no part of this great problem that has been given more study than the Mississippi River, and how unsatisfactory are the results! We have no abso-

lute knowledge of the interrelation of the various parts of this river system. All of our conclusions are based upon incomplete data. So good men disagree, according to their point of view and their interests.

In discussing flood control there are some who argue for levees only; and some, I have been told, who argue that since levees have failed to give complete protection they should be abandoned and the country cultivated only in times of low water. We might as well abandon our railroads because an accident occurs.

There are some who say "double-tracking" the Mississippi will save the day; that is, to provide new and additional channels from various points to the sea. This is an unproven remedy, and a problem to be approached with caution.

The people of Pittsburgh had a flood in 1907 that did about \$10,000,000 of damage. They got busy, raised a fund, made surveys, and now gleefully report that they have the answer. They say that by the construction of dams and the establishment of 17 reservoirs, at an expenditure of \$20,000,000, they can take 10 feet off the crest of the flood and reduce it below the danger line.

Colonel Townsend, Corps of Engineers, U. S. A., and president of the Mississippi River Commission, touched on the reservoir question in an address before the Interstate Levee Association at Memphis, Tenn., September 26, 1912. Among other things, he said:

"On the Upper Mississippi the Corps of Engineers has constructed the largest system of reservoirs for regulating river that have been built in any country, having nearly twice the capacity of those proposed by the Pittsburgh Flood Commission."

These reservoirs have been most successful, not only for increasing the low water discharge of the river above St. Paul, but also for reducing floods in that portion of the river.

These two facts mightily cheer the advocates of protection by the construction of reservoirs. Personally, I insist that the only way we can get an answer to the question is by a systematic survey and study of the entire drainage basin of the Mississippi and tributaries. That will require many years, and it will cost hundreds of millions of dollars to carry to a successful completion the plan that may finally be adopted. A beginning is necessary, however, and we must proceed upon the theory that every little helps, while holding steadfastly to the goal of thorough and complete regulation and control of the waters and the reclamation of the lands.

Reforestation in some sections will retard the run-off and prevent erosion with the consequent silting up lower down the stream. Reservoirs will furnish hydro-electric power, decrease high-water discharge, increase low-water discharge within certain distances. On the lower reaches there may be by-passes that will partially relieve the main channel when most necessary. Then there must be levees and bank protection everywhere. On this we can probably all agree.

So, while we are at work on the general, comprehensive plan for river regulation and flood control, let us in every way aid the immediate need of procuring sufficient funds for the Mississippi River Commission to bring their levees to the provisional grade agreed upon, and bring them to this grade with standard dimensions. This work will cost enough millions to astound us. That work is necessary. It also is necessary to so provide that the future will not make this expenditure unprofitable, as for instance through

\*From an address before the Western Society of Engineers.

caving banks and consequent loss of levees, which Colonel Townsend says even now is costing nearly \$1,000,000 annually to replace.

But how shall we put into effect this general plan for river regulation, flood prevention and swamp land reclamation after we shall have formulated it? It is not practical to drain or levee part of the land without affecting the rest; each tract of land will be benefited, whether the owner desires to share such benefits, and pay therefor, or not. It is different from the reclamation of land by irrigation, where the man does not get the water and the benefit of the work unless he does pay.

For this reason most of the States containing swamp lands have drainage laws permitting certain majorities of lands or owners to form drainage districts and so compel all persons owning land within that district that may be benefited to help pay the cost of reclamation.

Just as the States can help the individual landowners to organize their drainage districts, so can the Federal Government, in planning a complete system covering the entire drainage basin, work out efficient and harmonious plans for each individual project and have each project harmonize with the general plan covering the entire drainage basin.

This, I hold, is a National duty and a National necessity.

#### TO DEVELOP 28,000 HORSE-POWER

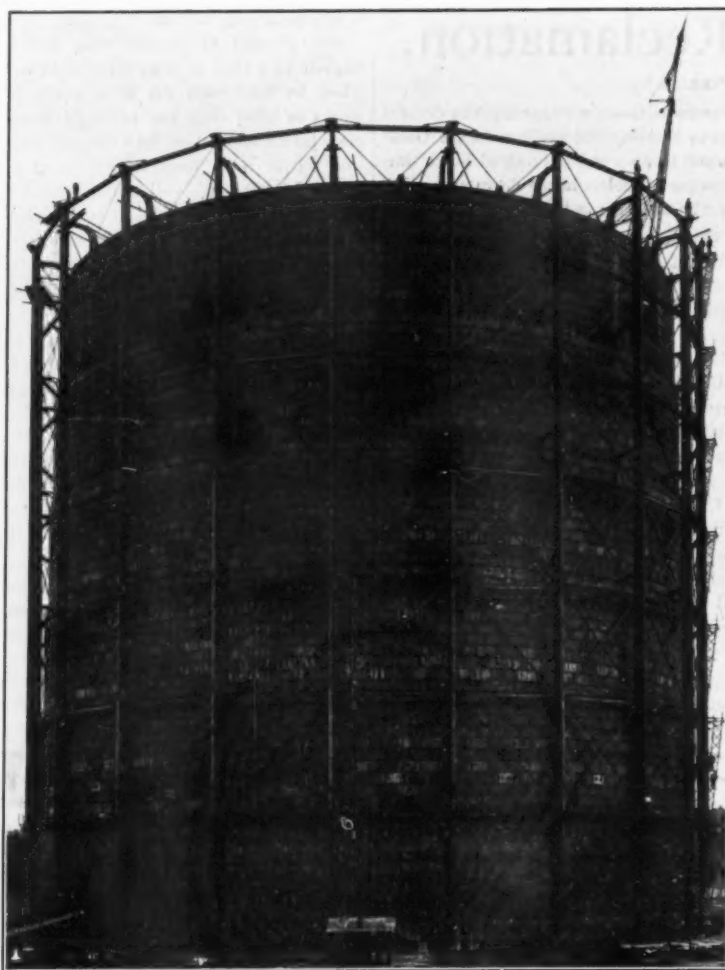
##### A \$3,000,000 Hydro-Electric Plant and Transmission System for Arkansas—Water-Powers of That State.

C. C. Kavanaugh, Little Rock, wires the MANUFACTURERS RECORD that he and associates of the Little Rock Railway & Electric Co. have obtained control of the Garland Power & Development Co., organized two years ago to develop Ouachita River water-powers, and confirms the following statement: The Garland corporation controls the water-powers on the Ouachita, the principal dam of which will be constructed in Garland county at a point 45 miles from Little Rock. This dam is estimated to produce sufficient electricity for central and southwestern central localities in the State. There are two other dam sites, and Mr. Kavanaugh has an option on the controlling interest in the Polk water-power sites above navigation on the Ouachita up to the Garland properties. Engineering has been completed and development work will begin soon, 28,000 horse-power to be developed and the plant and transmission system to cost about \$3,000,000. The first dam is to furnish electricity to all consumers within 100 miles of Little Rock; also to furnish electricity to the rice-growers of Lonoke, Prairie and Arkansas counties and the large bauxite plant in Saline county. The Garland company directors have resigned, and the following officers have been elected: President, C. C. Kavanaugh; vice-president and treasurer, W. M. Kavanaugh; secretary, D. H. Cantrell, all of Little Rock.

Referring to Arkansas water-powers, George R. Brown, secretary of the Little Rock Board of Trade, writes to the MANUFACTURERS RECORD as follows:

"The topography of the country through which some of the rivers flow create ideal sites for hydro-electric plants. The pioneer in the investigation of water-power sites of commercial value in Arkansas was Russell Harding, former vice-president and general manager of the Missouri Pacific Railway, who expended much of his funds in surveys and engineering reports on Arkansas and Missouri streams and rivers, and at the time of his death was preparing to construct a plant in Mis-

#### IMMENSE GASHOLDER FOR BALTIMORE.



The new 6,000,000-cubic-foot gasholder for the Consolidated Gas, Electric Light & Power Co., Baltimore, has been completed and put into commission. The flag which the riggers placed at the top of the structural steel, as shown in the illustration, waves 305 feet above the ground. This is nearly as high as Baltimore's tallest buildings.

The Bartlett-Hayward Company of Baltimore constructed and erected the holder for the Gas & Electric Company in "record" time. The work on the foundations was begun in May, and the structure, which in cubical capacity is equal to the Baltimore & Ohio Building, the Fidelity Building and the Emerson Hotel combined, was completed in six months.

This improvement provided work for several hundred men, as all of the steel was fabricated in the Bartlett-Hayward shops. The steel weighs 6,000,000 pounds. The holder is 222 feet 6 inches high and 224 feet in diameter at base. The water tank in which the holder floats contains 10,500,000 gallons of water, forming a lake of no mean proportion. Two rowboats are kept permanently within the holder tank. The distance required to walk around the holder is a sixth of a mile. The tank has seven flights of stairs and two steel ladders mounting from its base to its crown.

An idea of the great amount of material fabricated for this structure by the Bartlett-Hayward Company may be obtained from the statement that the capacity is greater than the entire capacity of all the company's tanks in Baltimore 10 years ago, and that about 3000 tons of steel were necessary. The outer ring of the bottom is composed of 44 steel plates 8 feet by 13 feet and seven-sixteenths of an inch thick, and the intermediate ring of the bottom is composed of 230 steel plates 20 feet by 7½ feet and five-sixteenths of an inch thick. The holder is designed to withstand a wind pressure of 100 miles an hour. The crown contains 35,000 square feet, and a weight of 175,000 pounds of snow on this top was allowed for in the design.

The holder was built under the direction of George Beadenkopf, the company's gas engineer, and will add appreciably to the company's efficient service plans. The limited time in which it was built by the Bartlett-Hayward Company is noteworthy.

souri and another at Cotter, Ark., on the White River, the latter work now being undertaken by the Dixie Power Co., its president being W. V. Powell, formerly an officer of the Missouri Pacific Railway, and E. J. Loop, secretary and treasurer, a banker of Cotter. The stockholders of the company are prominent financial men of this State.

"The building of immense hydro-electric plants such as is contemplated at Cotter is not only a vast physical, but a large financial undertaking. The Cotter dam

cranes. It is estimated that 14 months will be consumed in constructing the power dam, and that the cost will be \$1,500,000, including machinery and a transmission line 100 miles long. The Dixie Power Co. has no power for sale, and President Powell says that its bonds will not be placed with any trust or combination, and that the operation of the plant will be by Arkansas men, and that the power will be used to develop the vast lead, zinc and marble fields of Northwest Arkansas by furnishing cheap energy for mills and mines, smelters and electric railways, and any surplus power will be carried to cities and towns within a radius of 160 miles of Cotter.

"The White River is declared by the Federal Government to be a navigable stream to Forsythe, Mo., 125 miles west from Cotter. To dam a navigable stream requires an act of Congress. At the last session of Congress Congressman Floyd of Yellville introduced a bill granting to the Dixie Power Co. the right to dam the White River, which was passed unanimously by the House and Senate, but vetoed by President Taft on the ground that the bill failed to provide a Federal franchise tax and for Federal supervision and control. It is proposed by Congressman Floyd to take such action at the coming session of Congress as will give the Dixie Power Co. right to dam the White River, and when done construction of the dam will begin immediately.

"Hydro-electric power is the magnet that attracts and secures new industries and manufacturing enterprises, for it is cheap, cleanly and in all ways satisfactory. The one thing that Little Rock most needs is cheap power. The development of the Cotter plant will no doubt awaken much interest in the water-power situation in this State and will hasten the development of similar plants on the Ouachita River, Little Missouri and the Red rivers and others, all of which will benefit Little Rock and the immediate sections when located.

"Northwest Arkansas will especially be benefited by the construction of the Cotter dam, and an electric railway from Cotter to Mt. Home, Bergman to Harrison and Newton county, Yellville to the mining districts on Rush Creek and the Buffalo rivers is now being projected. The proposed dam will give a daily boating stage of water at least 50 miles north of Cotter and furnish transportation for several hundred square miles of country which is now largely inaccessible on account of mountainous conditions, and which will develop rapidly.

"Mr. Powell, who has maintained his residence in Arkansas for the past 20 years, is enthusiastic over the benefits that will accrue to Arkansas by the construction of this immense dam. He referred to large deposits of bauxite ores near Little Rock that can be smelted and manufactured at home; of cotton and other mills that would be attracted to the State by reason of cheap power; of electric interurban lines that would be made possible, and many commercial resources that could and would be developed."

"Power from the Cotter dam could be taken to Fort Smith, Little Rock, Memphis or Springfield (Mo.), but Little Rock seems to be the logical point. Federal investigation and reports show the average cost of steam horse-power per year in Little Rock to be \$63.30. With hydro-electric power this cost would be very materially reduced, which would greatly aid in rapidly placing Little Rock on a manufacturing basis and hasten the day when it can be proudly said that our population has reached the 200,000 mark."

will be approximately 1750 feet in length, 80 feet in height, with 950 feet of core wall and 800 feet of spillway. The construction will be of the hollow type, concrete reinforced with steel, and designed to meet every requirement of the Cotter site. The location at Cotter for rapid and economical construction is ideal; an abundance of clean gravel at hand for concrete purposes, and by extending a railway industrial track 1200 feet all machinery, cement and other material can be unloaded at the power site by power



# New Texas Port Opened

## FREEPORT'S IMPORTANCE IN INDUSTRY AND COMMERCE RECOGNIZED.

Freeport, Tex., was formally opened on November 20, adding a new port to the Gulf Coast of Texas. Governor Colquitt and other State officials, railroad managers, capitalists and leaders of industry were present. Governor Colquitt in his address to the citizens and visitors said: "I want capital and industries to know that during my administration they can come to Texas, and as long as they keep within the law, they will have the arm of the law thrown around them to protect their interests." The Governor commended the promoters for offering free port facilities to Texas commerce. The guests visited the sulphur mines and inspected the wharfage and water facilities.

The *Waco Times-Herald*, dwelling upon the opening, said:

"About two years ago Mr. E. P. Swenson of the well-known banking firm of S. M. Swenson & Sons, himself a native Texan and well versed in conditions in this State, began a thorough and exhaustive study of the sulphur fields at the mouth of the Brazos River, and reached the conclusion that they were very rich in sulphur. To confirm his own ideas, he employed some of the best talent that could be secured, and the reports made were highly satisfactory. Mr. Swenson then began his work of getting others interested in the proposition. This was not a hard matter, for the proofs offered by Mr. Swenson seemed conclusive. A syndicate was formed with some of the leading financiers and engineers in the East as members of the same, the personnel including such men as F. A. Vanderlip, James Stillman, John Hays Hamond, the Westinghouse Company and others of equally well-known ability and standing. The most complete machinery that could be manufactured was sent at once to the fields and was installed under the personal direction of the Westinghouse people. The machinery was put in motion as soon as possible, and for months the work has progressed. It was on Monday of this week that the vein of sulphur was reached, and the method employed in bringing it to the surface was entirely satisfactory, and great quantities of moulten sulphur, 92 per cent. pure, was the result. This fully vindicated the judgment of Mr. Swenson and his associates, and with the several hundred acres embraced in the fields there is every reason to believe that there is a supply of sulphur here that will not only have an important bearing upon the sulphur industry in the United States, but will add one of the largest industries in the State to Texas.

"After the syndicate decided to develop the sulphur fields, after a careful study, it was decided that there were so many possibilities otherwise, and the further fact that the mouth of the Brazos, the intercoastal canal and the Gulf port, made this place a strategic one for a port city, and that with the sulphur development other industries would follow, and that the town would not only become one of commercial importance, but a manufacturing point as well. Several thousand acres of land were acquired, including several miles of waterfront, and work was begun along this line.

"When the plans and heavy investments of the New York syndicate at Freeport were generally known, and the possibilities from a shipping standpoint understood, large industries became interested. One of the first to be attracted was a

sugar refinery. A company with a capital of \$2,000,000 has been organized and will place a plant at Freeport of immense capacity. Texas consumes 2500 barrels of sugar daily, and out of this amount less than 200 barrels per day is refined in this State. A sugar refinery in this State means a saving in the price of sugar of eight cents per 100 pounds on account of the freight differential as compared with New Orleans. This will be welcome news to Texans. It shows, however, the class of industries that will be attracted to Freeport on account of her shipping facilities.

"Another industry that is being projected at Freeport is a great oil refinery to consume the productions of the Tampico fields in Mexico, which are thought to be the largest fields in the country. A system of tugboats will be inaugurated, and this refinery will, perhaps, affect the price of oil to some extent. Other industries are sure to follow in the wake of these, and the superior shipping facilities of Freeport will within itself be a potent factor in the rapid development of the new town.

"There are three big railway systems in this State that do not reach tidewater over their own lines—the Missouri, Kansas & Texas, the Frisco lines and the Hill lines. Freeport is within easy access to these lines, and with the shipping facilities offered, with the availability of terminal grounds, it is reasonable to suppose that these lines will be attracted to the new port, and it is a known fact that the matter is already receiving consideration by the heads of these railways.

"With the extension of one or all of these lines the importance of the town looms up greatly, and these are not only possibilities, but probabilities.

"The work that the Government is doing in making the Brazos River navigable from its mouth to Waco; the work that is being done in the completion of the Intercoastal canal; the wharfage that is available and that will be added by the syndicate, and the improvements that will be made in the future, as has been stated, makes the new port one of first importance, and the public will watch the rapid developments with increased interest, for it is an academic proposition that these will make the port a material one."

The *Houston Chronicle* said:

"There have been many enterprises in the way of towns and manufacturing sites and 'seaports,' which have been inaugurated with a great flourish of trumpets, and selling of stock, and promises of great development, but which have 'gone up like a rocket and come down like a stick,' leaving nothing but the wreck of shattered plans and disappointed hopes and lost fortunes to tell the tale of booming and bursting bubbles.

"It would seem that such is not to be the fate of Freeport—at least the character of men behind the enterprise gives promise of fair dealing and good faith. The name of Swenson is one long familiar to the people of Texas. S. M. Swenson, the founder of the house, was long an honored citizen of Texas and an associate and co-laborer with many of the men whose names are honorably identified with the history of the State.

"In that field and sphere of fierce struggle where the doctrine of 'the survival of the fittest' is applied—New York—he established himself and his sons and won not only fortune, but the respect of 'the street,' and his son, a native of the capi-

tal of Texas, maintains the reputation of the family.

"Associated with him in the great enterprise at the mouth of the Brazos are some of the leading financiers of the United States, and all conditions and movements at present point to successful development of great industries and the establishment of an honest enterprise.

"The Governor of the State was present, and in the course of a speech assured those present that capital could come to Texas with the full assurance that it should be protected by wise legislation. It is to be hoped that the Governor will make that pledge good. Confidence in Texas laws and Texas Legislatures is sorely needed in those parts where capital in large sums is to be found and where Texas is looking for it to develop her marvelous resources.

"If such deposits of sulphur materialize at Freeport as are expected and promised, Texas will control the sulphur markets of the world; and if a free port with deep water be established, a score of roads will push the southern end of their rails over to the banks of the Brazos where it meets the sea.

"Tributary to Freeport are large bodies of lands which are the richest on earth. Their fertility is inexhaustible and their productive capacity unequalled on the globe. Riches in the bowels of the earth, riches on the surface and tidewater at the gates of Freeport is a rare combination. It will take capital, and much of it, to carry on the enterprise, as it will to carry to success other great enterprises which far-seeing men have in view."

### CHARLOTTESVILLE AROUSED.

#### Grasping Its Opportunities for Industrial Development.

[Special Cor. Manufacturers Record.]

Charlottesville, Va., November 23.

Charlottesville seems about to be aroused to the opportunities that lie about her. A new factor was injected last July when the Charlottesville & Albemarle Electric Railway Co. was taken over by a new corporation of business men. Young blood was infused, and the new company now has some ambitious plans for the future, which, if they be carried out as contemplated, would awaken things in general. The new company comprises among its officers and directors Major Channing Bolton of this city, president; F. C. Todd of Baltimore, secretary and treasurer, his residence being at Ruxton, in the Green Spring Valley; Norman James of Baltimore, vice-president, and John L. Livers of this city, manager. The company is now contemplating an extension of the line, known as the Fry Spring line, on to Alberene, at the soapstone works, eight miles from the present terminus of the Charlottesville & Albemarle. This will connect with the Southern and the Chesapeake & Ohio railways and give connection with the James River Interurban. Surveys are now being made for this line, so Mr. Livers informed me.

A meeting of citizens of Madison and Greene counties was held today at Standardsville, in Madison county, the purpose of the meeting being to take initiatory steps toward building an interurban line from the town of Madison to Standardsville, thence to Alberene and Charlottesville. The line contemplated would comprise 30 miles of track. The counties of Greene and Madison are at present without railroad facilities of any sort, and the citizens are declared to be very much aroused over the situation and desirous of bringing about a change. Greene and Madison are counties bearing enormous timber wealth, to a great extent untouched,

due to the conditions stated. It is very probable that the line will be built at no very distant day, as the people of those counties will have the hearty co-operation of the Charlottesville & Albemarle Company, which is, of course, interested in the project.

One important branch of the Charlottesville & Albemarle Company's activities has been the extension this summer of its lighting lines over the contiguous territory to Ivy and Keswick, there being 12 miles of wire in this extension alone. The company has also added an extension to its car barns, the extension being built of concrete and steel, 30x100 feet. There have also been added five new cars to the equipment of the line, with an addition of 300 kilowatts to the generation department and a 500-horse-power boiler.

One of the most interesting plans of the Charlottesville & Albemarle Company that will not, however, be developed before six or eight months have elapsed is the probable opening of a high-class suburban property. The company has lately purchased an old hotel in one of its parks, and is now having it razed and the grounds cleared. A contract has been made with James Langdon of 1226 Munsey Building, Baltimore, the landscape architect who laid out Roland Park, Baltimore, and the plans as shown me contemplate almost the identical general scheme as was followed at Roland Park.

The University of Virginia is now building a concrete extension to the Stadium which will increase the seating capacity therein to 5000 persons. This work is in charge of Dr. W. L. Lamberth. Stone for the work is being furnished by the Charlottesville & Albemarle Railway.

A new company, known as the Hopkins Electric Mail Receptacle Co., was recently organized here for the manufacture of an electric mail box device, and William S. Sawyer, the manager, is now in New York city getting estimates and having dies made. The device is intended to convey intelligence when mail is placed in a box by automatically causing a bell to ring in a house or in a room. The company comprises, in addition to Mr. Sawyer, John H. Shaw, president; George Mason, Matthew Lorimer, secretary. The capitalization is between \$100,000 and \$125,000. The company will erect a factory at Charlottesville.

Albemarle county, I find, is progressing toward good roads. The county officials are sensibly using convict labor and are building a good many miles of fine macadam highways.

One of the most potential interests of this section of Virginia is that of the soapstone and slate works at Alberene, near this city, of the Alberene and the Old Dominion companies, belonging to D. N. Carroll of New York city, and the Standard Slate Co. These plants have been in operation a number of years, and their output is said to be very potential.

One of the oldest and most standard concerns of the Charlottesville territory is the plant and business of the Charlottesville Woolen Mills Co., R. P. Valentine, president, and Louis T. Hanel, secretary-treasurer. This concern, capitalized at \$200,000, operates a water-power plant at the junction of the Rivanna River and Moore's Creek, about two and a half miles from Charlottesville. It has been in operation 30 years. The horse-power develops from 120 to 200, but is unavailable for three months a year owing to low water. The run-off is extreme. The company has a splendid plant, manufacturing velvet grays, navy blues, men's cloth, various grades of uniform goods, including a very high-class and beautiful quality of doeskin

for army officers. There are but 20 customers on the books of the company, and these 20 apparently take the output of the mills, which aggregates 150,000 yards a year. These customers, as stated to me by the president, range from Maine to Florida, from El Paso, Tex., to Seattle, including State institutions and railroads.

Only native labor is employed, there being 150 men and women on the payroll. The president, who is one of the most affable, courtly gentlemen one may wish to ever meet, is very proud of the fact that the Charlottesville Woolen Mills have had a highly beneficial effect upon the employees, there being a very strong paternal air toward the workers upon the part of the employers, which is reciprocated by the latter by a highly-developed loyalty toward the company. The raw material of the Virginia hills has thus become a genuine factor in the community, making men and women, numbers of them having become home owners and many more having made a substantial start toward doing so. They own also their community chapel and school, a large part of the expense of building which was borne by the company. These former mountain folk have thus become fixed and valuable entities—assets now, and not liabilities.

Realizing fully the worth of all this, and appreciating the Charlottesville Woolen Mills Co. at its full face value as a potent Virginia factor, it was at the same time easily apparent to me that the company is not living up to its full opportunities—not nearly by half. While the plant power is supplemented in the course of low-water stage by oil engines, there seems to have been no attempt so far to reach out, to expand, to take advantage of this age of electricity.

With this 30 years of honest business record by the company, I drew a picture on my mental canvas, as I sat in the president's office, of what a gloriously tremendous asset all this effort and staunch annual of production would become if the owners could only be led to see it and to capitalize into publicity this wonderful record of sterling integrity, strong character—beautiful, benignant, yet uncompromisingly just.

From a mere handful of 150 contented toilers, nestled away here in a beauty spot of the Blue Ridge foothills, with the silent grandeur of the mountains standing guard beyond, I could see another Lowell, another Manchester; I could count these happy, contented toilers by the thousands, and where now is a peaceful calm brooding over this very village, there were in that picture ten hundred white cottages capping these sapphire hills; there were millions of yards spun, where now are six-score and a half thousand. Some day, perhaps; some day!

May it not be that the feverish young blood in the reorganized Charlottesville & Albemarle Railway Co. may soon transmute this 30 years' record into a force of tremendous potency, with its strands of burnished copper, its kilowatts and its amperes!

C. F. DRAKE.

#### A Mississippi River Line.

The Chicago, Peoria & New Orleans Transportation Co. has been chartered under the laws of Delaware with authorized capital of \$500,000 for a steamship and barge line. The officers are Edward C. White, president, Chicago; J. F. Bartley, vice-president, Peoria, Ill.; C. G. Alexander, secretary-treasurer, Chicago. A report from Peoria quotes Col. E. S. Conway, formerly president of the Chicago Association of Commerce, as saying that the company will operate steamers on the Mississippi.

#### Cotton Facts.

The new edition of "Cotton Facts," which brings the statistics and information to the close of the last cotton season, August 31, is the 37th annual issue of the well-known reference-book for the cotton trade, having first been published by the late Mr. Alfred B. Shepperson in 1876. While in the main the features of previous issues have been preserved and no efforts have been spared to make the book as reliable and useful to all interested in cotton as the previous editions, new features have been added, notably a very interesting article from the pen of the Hon. Martin V. Calvin, secretary of the Georgia State Agricultural Society, on judicious application of fertilizers in the cotton field and its results; also a timely article by a well-known Lancashire authority on the state of the Lancashire cotton-spinning industry at the close of the cotton season. The cotton acreage and yield by counties in the last two census years, 1899 and 1909, are given in detail. Ginning statistics in full are given for a number of years. Carefully compiled indexes of general contents and of advertisements will prove helpful. "Cotton Facts" is published by the Shepperson Publishing Co., Cotton Exchange Building, New York.

#### To Cut Mississippi Timber.

T. J. Spragins & Son, Fenwick, Miss., writes to the MANUFACTURERS RECORD as follows:

"We have contracted for all the hardwood timber owned by the Homochitto people in Franklin and Amite counties, Mississippi, and we shall construct a mill at Bude, Miss., for the purpose of manufacturing this hardwood timber; the said mill to have a capacity of approximately 25,000 feet per day. The Homochitto people will deliver the logs to our mill and will log the same along with their own mill. It is estimated that the life of the contract will last about 15 years. The hardwood timber which we have purchased consists principally of the red and white oak, poplar, ash and gum. The mill which we shall build at Bude, Miss., will be managed by L. T. Spragins, the junior member of the firm. T. J. Spragins, senior member, will continue to have active management of our mill at Jackson, Miss., which is incorporated under the firm name of South Mississippi Lumber Co."

#### Wilmington Needs Dwellings.

Chamber of Commerce,

Wilmington, N. C., November 25.

Editor Manufacturers Record:

The demand for more houses to accommodate new families that are steadily coming to Wilmington to make their homes has brought forward strong resolutions from the real estate men of this city, appealing to the men of capital in Wilmington and elsewhere to supply the need. Wilmington's growth in the past few years has been phenomenal, and although large numbers of houses have been erected in all parts of the city and are steadily being built, it has proven impossible to supply the demand.

H. B. BRANCH, Secretary.

President G. R. Wright of the Southern Wood Distillates Co. of Chicago is quoted at New Orleans to the effect that the company's big plant at Bogalusa has begun operations with 120 employees and utilizing in the manufacture of cardboard 50 carloads a day of waste material from the mill of the Great Southern Lumber Co. The daily output of the plant is about four carloads of cardboard.

## GOOD ROADS

### WEEK'S HIGHWAY RECORD.

#### Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department, published elsewhere in this issue.]

#### Bonds Voted.

Angleton, Tex.—Brazoria county voted \$150,000 bonds for road construction.

Green Cove Springs, Fla.—Town voted \$20,000 bonds to pave Main street.

Holly Springs, Miss.—City will issue \$12,500 of bonds to pave street around public square and Church street.

Palacios, Tex.—Matagorda county voted \$100,000 bonds for road construction.

Purcellville, Va.—City voted \$5000 bonds for street lighting and improvement.

#### Bonds to Be Voted.

Conroe, Tex.—Montgomery county will vote December 23 on \$250,000 bonds for road construction.

Groveton, Tex.—Trinity county votes December 10 on \$60,000 bonds to construct roads in Precinct No. 1.

Pineville, Ky.—Bell county votes March 4 on \$350,000 bonds for road construction.

#### Contracts Awarded.

Birmingham, Ala.—City awarded contract at \$22,000 for street paving.

#### Contracts to Be Awarded.

Cumberland, Md.—City will grade and curb 750 feet of Williams street.

Dallas, Tex.—City will pave streets with creosoted pine blocks, bitulithic, vitrified brick blocks, Bermudez asphalt concrete, concrete curb and gutter.

Edgewood, P. O. at Wheeling, W. Va.—City receives bids until December 2 to construct about one-half mile stone or concrete curbing and about 20,000 square yards paving of brick, block, bitulithic, tarvia or Warrenite paving or oil-bound macadam.

Johnson City, Tenn.—City receives bids until December 19 for 2000 cubic yards excavation, 18,000 square yards street paving, 14,540 linear feet curb and gutter, etc.

Newton, N. C.—City will lay about one mile of granolithic paving.

Newton, N. C.—City will construct a few hundred yards five-foot cement sidewalk.

#### American Road Builders.

Plans for the third American Good-Roads Congress, under the auspices of the American Road Builders' Association, which will open at Music Hall, Cincinnati, O., Tuesday, December 3, are practically complete. Reports from the officers of the association and the several committees charged with the work of preparing the program, arranging for the allotment of exhibition space and the entertainment of visitors, etc., indicate that this congress will surpass in interest and actual value to the paving and road-building industry any previous meeting ever held.

It is assured that the exhibition of road and street building machinery and materials will be larger than that at Rochester, N. Y., in November of last year, which was the largest which has yet been held. The amount of space already reserved is much greater than that at any of the three previous exhibitions held in connection with conventions of the American Road Builders' Association.

Interest in that section of the exposition which will be participated in by the United States Office of Public Roads, States,

cities and engineering schools is increasing steadily, and applications for space are being received daily. Among the States for which space for exhibits has already been reserved are New York, Massachusetts, Michigan, Minnesota, Wisconsin, New Jersey, Connecticut, Illinois, Kentucky, Tennessee, Virginia, South Carolina, Washington and the District of Columbia. The city of New York and Cincinnati will both make exhibits. Among the educational institutions which will be represented by exhibits are the Massachusetts Institute of Technology, the University of Ohio, the University of Cincinnati, Columbia University and the Rensselaer Polytechnic Institute.

The exhibit of the United States Office of Public Roads will consist of models of modern roads of different types and historic models showing the evolution of road building from ancient times to the present. The exhibits of the States and cities will comprise maps, charts and photographs showing various methods of building roads and streets, models of the different kinds of work, testing machinery, samples of materials, etc. The exhibits of the engineering schools will consist of maps, drawings, diagrams, photographs, charts and outlines of the engineering courses as carried on in the several institutions.

In addition to the addresses by President Nelson P. Lewis of the association, and discussions of plans for the organization of highway departments for a city, for a State and for a county and township, to be participated in by Major W. W. Crosby of Baltimore, Md.; W. H. Connell of Philadelphia; A. N. Johnson, State Highway Engineer of Illinois, and James Macdonald, State Highway Commissioner of Connecticut, the following papers will be presented:

"The Development of a Plan for a State Road System," by James R. Marker, State Highway Commissioner of Ohio.

"Wood Block Pavements Laid by Day's Labor," by Ellis R. Dutton, Assistant City Engineer of Minneapolis, Minn.

"Cuts in Newly-Paved Streets," by H. M. Waite, City Engineer of Cincinnati, O.

"The Contractor's Point of View," by Hugh Murphy, contractor for public works, Omaha, Neb.

"Plant Equipment," by F. E. Ellis, manager Essex Trap Rock & Construction Co., Peabody, Mass.

"Some Features of Macadam Construction," by T. R. Agg, Road Engineer, Illinois State Highway Commission.

"Earth and Gravel Roads," by Robert C. Terrell, Commissioner of Public Roads of Kentucky.

"Highway Bridges and Culverts," by W. A. McLean, Engineer of Highways, Province of Ontario, Canada.

"Economics of Highway Construction," by Clifford Richardson, consulting engineer, New York city.

"Traffic Census as a Preliminary to Road Improvement," by Col. Wm. D. Sohler, chairman Massachusetts Highway Commission.

"The Laying of 104 Miles of Smooth Road Surface in One Borough in Five Months," by G. Howland Leavitt, Superintendent of Highways, Borough of Queens, New York city.

"Bituminous Pavements for City Use," by George W. Tillson, consulting engineer to the Borough of Brooklyn, New York city.

Participants in discussions of these papers will be Col. E. A. Stevens, State Highway Commissioner of New Jersey; S. D. Foster, chief engineer State Highway Department of Pennsylvania; H. W. Klausmann, City Engineer, Indianapolis,



Ind.; R. A. Meeker, State Highway Engineer of New Jersey; Prof. A. H. Blanchard of Columbia University, New York; A. W. Dean, chief engineer Massachusetts Highway Commission, and Robert J. Potts, chief engineer Massachusetts Highway Commission.

Topical questions to be discussed in one session include small blocks, natural or artificial, for country roads; convict labor on road work; correction of alignment and grade in existing highways; care of the roadside, including tree planting and removal of unsightly objects; division of expense of road improvement, and unit price vs. lump sum contracts.

### PEANUTS AT CLEBURNE.

One of the Elements of Factory and Farm Development.

[Special Cor. Manufacturers Record.]

Cleburne, Tex., November 18.

Cleburne, like most other cities of its size in Texas, is mainly an agricultural center, and so, of course, is prosperous, as all farming interests in the State are now enjoying an unusual era of prosperity. However, Cleburne has several sustaining industries aside from its agricultural interests, and it is partly from these that it gains its distinctiveness.

Cleburne, the seat of Johnson county, with its population of over 10,000 and its pretty homes, is the center of territory which is becoming widely known for its peanut production, in addition to producing the usual amount of fruits and vegetables. The soil in Johnson and adjacent counties is especially adapted to raise the peanut.

On one side of Cleburne the soil is adapted for agricultural pursuits only, and on the other cattle raising is the special vocation of the inhabitants. On both sides, however, the land grows peanuts with best results. The peanut industry has given impetus to another, viz., hog raising. The Cleburne territory has become noted for this production, as the peanuts fatten the hogs much quicker than any other food.

Denoting permanency and stability are the municipal improvements and transportation facilities of Cleburne. All modern city improvements have been installed and are now in use. Aside from three of the leading Texas railroads which touch Cleburne, an hour schedule is maintained between Cleburne, Fort Worth and Dallas over the interurban lines of the Northern Texas Traction Co.

The Santa Fe system furnishes Cleburne one of its most important industries in the central office force and machine shops of the system. In offices and shops nearly 1500 men are employed. There are nine large buildings in the Santa Fe group in Cleburne, furnishing work for the many men employed in the various departments. The plant is equipped according to all latest and modern ideas. There is an active Board of Trade, with J. T. Joplin secretary.

ROY G. BOOKER.

Arthur C. Freeman, Jr., consulting engineer, Norfolk, Va., has been awarded contract to make survey showing right of way of Chesapeake & Albemarle Canal and to mark it by concrete monuments. This canal is one of the most important links of the inland waterway system connecting Albemarle Sound and Chesapeake Bay.

The Greater Charlotte Club of Charlotte, N. C., Leake Carraway, secretary, is circulating an attractive leaflet containing a condensed statement of vital facts about the city, which are more elaborately treated in the "Book Beautiful" which the club is distributing.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### J. G. WHITE & CO. ENLARGES.

Increasing Business Demands More Capital for Various Big Enterprises.

A meeting of stockholders of J. G. White & Co., Inc., has been called for December 10 to act upon a proposition to incorporate the engineering-construction department and the operating department of the company each separately. It is stated that if this is done additional capital could be advantageously used. The plan is to form two new companies, one the J. G. White Engineering Corporation, to take over the engineering-construction department, and the other the J. G. White Management Corporation, to take over the operating department. The Engineering Corporation is to have \$1,000,000 7 per cent. cumulative preferred stock and an equal amount of common stock. The latter will be issued for good-will and other assets to J. G. White & Co., Inc., who, it is proposed, will also subscribe for \$500,000 of the preferred shares, the rest of which will be held for future needs. The Management Corporation is to have \$500,000 of 7 per cent. cumulative preferred stock and \$500,000 common stock, which latter will be turned over to J. G. White & Co., Inc., who will also subscribe for \$350,000 of the preferred, leaving \$150,000 to be disposed of as may be decided. Details as to the rights of present stockholders under the plan are announced in a circular signed by President J. G. White.

Another circular signed by J. G. White & Co., Inc., gives some interesting information concerning the business of the corporation. It says, among other things, that the aggregate cost of work under way in the hands of the engineering-construction department this year up to November 11 has been about \$28,000,000, and is distributed through 30 different States and Canada. It covers the complete rehabilitation of several public service properties, the construction and equipment of two high-speed interurban electric railways, one 84 miles long; the drainage of 118,000 acres of land in Florida, and the construction of a natural gas pipeline 124 miles long. The hydro-electric developments under construction by this company include some of the most important in the United States, and their aggregate capacity is approximately 250,000 horse-power. Appraisals and reports have also been made upon properties totaling in value more than \$400,000,000. The management department has charge of the operation of a number of important properties, including the electric railway, lighting and hydro-electric properties of Augusta, Ga.; the electric railway, light, power and gas properties at Helena, Mont., and the electric railways and light properties at Manila, Philippine Islands.

The balance-sheet of J. G. White & Co., Inc., September 30 shows total assets of \$4,820,926.96. Its capital stock consists of \$3,000,000 of 6 per cent. cumulative preferred and \$2,000,000 of common.

### A PANHANDLE RAILROAD.

Enid, Ochiltree & Western, a Texas Line, to Be Completed for 113 Miles.

It is proposed to complete the Enid, Ochiltree & Western Railroad. The property, which now has only 13 miles of track from Dalhart to Wilcox, Tex., was purchased several months ago at the receiver's sale, and the new owners, includ-

ing, it is said, Col. Charles Hamilton of Waco, Tex., are represented by a committee consisting of G. A. Vawter, H. J. Cureton and O. J. McKnight. C. H. Sherman is general manager for the owners, with office at Dalhart, and D. C. Morris is chief engineer. Capitalists are now investigating the proposition, which is described in a pamphlet saying that the property, in addition to the finished track, has sidings and yards at Dalhart and Wilcox and connections at Dalhart with the Rock Island and the Fort Worth & Denver City roads; also a roadbed completed for the track between Wilcox and Dumas, 21 miles; 113 miles of right of way from Dalhart to Ochiltree, Tex., deeds for it being filed; depot grounds at all stations and 32 acres at Dalhart. There is, furthermore, considerable other property and equipment.

It is now proposed to build 100 miles of track from Wilcox to Ochiltree, on which, it will be observed, 21 miles of grade are finished. It will require \$300,000 to do this work. Of this, \$600,000 is to be borrowed, but \$300,000 is to be invested by the owners in money and securities, making a total of \$500,000 put up by them, as they value the property at present at \$200,000. Stocks and bonds are to be limited in amount to the cash actually expended in construction. Engineering records and estimates are complete.

The route of this road lies in the upper part of the Texas Panhandle. It runs southeast from Dalhart to Dumas, and thence northeast to Ochiltree. This is described as an excellent farming country which will yield large results in traffic.

### ATLANTIC COAST LINE.

Gratifying Development Revealed by the Annual Report—New Construction.

The complete report of the Atlantic Coast Line Railroad Co. has been issued, showing for the fiscal year ended June 30, 1912, operating revenues \$33,463,557, increase as compared with the next preceding year \$1,841,108; operating expenses and taxes \$23,940,977, increase \$2,213,191; net operating revenue (less taxes) \$9,522,579, decrease \$372,082; gross income \$12,727,884, decrease \$410,846; net income after interest and rentals and miscellaneous deductions (the latter being only \$58,065) \$7,010,881, decrease \$496,112; ratio of operating expenses and taxes to operating revenues 71.54 per cent., as compared with 68.71 per cent. last year. Preferred dividends at 5 per cent. amounted to \$9925, and common dividends at 7 per cent. to \$4,098,586.50. The decrease in operating income was due to increase in operating expenses and taxes, most of the gain in expenses being owing to large increases in wages. Taxes also increased more than 9 1/4 per cent.

The company has had under construction additional second track thus: Battleboro to Weldon, N. C., 28 miles; Roanoke River, North Carolina, to the Virginia boundary, 7.6 miles; Mt. Holly, S. C., to the Santee River, 27.6 miles; Falling Creek to James River, Virginia, 5.9 miles, and all excepting the latter will be completed by January 1.

It is expected that the new line under construction from Dunnellon northwest to near Wilcox, Fla., about 50 miles, will be completed before June 30 next. Construction began in April. The company is also building a new line from Archer to Morriston, Fla., about 20 1/4 miles, which is expected to be finished by the same time. The present line between the last two points is owned by the Seaboard Air Line, and the Coast Line operates trains over it under a trackage agreement. Construction is also under way on the James

River branch at Richmond, Va. It is about six miles long and should be completed early in 1913. The Lucerne Park branch about five and three-quarters miles long from the Bartow branch in Florida, was completed in September of this year. The new lines between Weldon and Barysburg, N. C. (including the elevated through Weldon and the viaduct and bridge over Roanoke River), and also between Haines City and Sebring, Fla., were completed and put in use. There were 143 miles of main line relaid with new 85-pound rails. About 70 miles of line were also relaid with relaying rails ranging in weight from 50 to 80 pounds.

Industrial development included the establishment of 215 factories, mills, etc., during the year on the lines of the system. There were also 3844 heads of families located to engage in agriculture, this being an increase of 941, or nearly 27 per cent., as compared with last year.

Adverse weather conditions interfered with the operation of the railroad and increased expenses, as well as lessened earnings, but expecting a larger freight movement this year the company ordered 4519 freight cars, all to be delivered by the summer of 1912 adding more than 15 per cent. to the freight-car equipment.

At Savannah there were erected cotton sheds and warehouses to take the place of those destroyed by fire in May of this year.

The report is signed by T. M. Emerson, president, and H. Walters, chairman.

### New Equipment, Rails, Etc.

Louisville, Henderson & St. Louis Railroad has filed an equipment mortgage covering 22 box cars ordered from the American Car & Foundry Co., St. Louis; 3 parlor cars from the Barney & Smith Company, Dayton, O.; 6 locomotives from the Baldwin Locomotive Works, Philadelphia, and 2 baggage cars from the Louisville & Nashville Railroad Co.

Maryland Steel Co., says a market report, has ordered a six-wheel switching locomotive from Baldwin's.

Illinois Central Railroad is reported about to purchase 3000 gondola cars, 1000 box cars and 500 stock cars.

Weatherford, Mineral Wells & Northwestern Railway has ordered a consolidation locomotive from the Baldwin works.

Coal & Coke Railway, says a report, is about to place orders for 500 coal cars.

Harriman lines are reported negotiating to let contracts for 10,000 cars, of which 2000 gondola cars, it is said, will be built by the Bettendorf Axle Co., Davenport, Iowa.

International & Great Northern Railroad is reported in the market for 1000 box cars.

Macon Railway & Light Co., Macon, Ga., is reported in the market for five prepayment cars, and may purchase seven of them.

### Railroad for Eastern Texas.

A report from Austin, Tex., says that the State Railroad Commission has been informed that the Marshall & East Texas Railroad will be extended southward from Elysian Fields to Hemphill, 75 miles, to connect with the Orange & Northwestern Railway, which is being extended from Newton to Hemphill, about 35 miles, and which is expected to be completed in a few months. From Elysian Fields to Hemphill it is said the route lies through forests of virgin yellow pine, which would be cut. The connection of these two lines would also make a new north and south railroad through the eastern part of Texas, and it is asserted that as the own-

ers of the Marshall & East Texas are friendly to the Frisco system, which controls the Orange & Northwestern, an agreement to operate the roads harmoniously could be easily attained.

#### Railroad to a Seaside Resort.

The New Hanover Transit Co., A. W. Pate, president, Wilmington, N. C., says it is making preliminary survey of a right of way between Wilmington and Carolina Beach, 15 miles. It is hoped to begin construction next spring and to complete the line in time for the season of 1914. Jos. J. Loughlin is secretary and treasurer.

The company now owns three and one-half miles of railroad from Carolina Beach to a pier on the Cape Fear River, a large and commodious pavilion at the Beach, bathhouses, restaurant, water plant and about 800 acres of land extending from the ocean to the river.

#### Another Mississippi Bridge.

Concerning a recent report that a bridge costing about \$1,500,000 would be constructed over the Mississippi River at St. Louis in connection with the plans of the St. Louis Belt, Illinois & Eastern Traction Co., J. D. Houseman, general manager, 701 Roe Building, St. Louis, says that soundings have been made in the river and plans prepared for the bridge, with estimates of cost, but the company is not ready to begin construction and there may be changes. Engineers are at work on a survey of the line in Illinois.

## MINING

#### Chattanooga Coal & Iron Co.

C. E. Buck of Chattanooga writes to the MANUFACTURERS RECORD as follows: "The properties of the Chattanooga Iron & Coal Co., for which I was appointed receiver, were sold on the 15th of this month and bid in by a committee representing the bondholders. As soon as I am discharged as receiver I will act as manager for the bondholders until a new company is organized, which I expect will take about 30 days longer. We will probably apply for a charter very soon."

An unofficial report states that \$500,000 was the purchase price. The property includes timber land near Dunlap, Tenn.; iron-ore mines at Estelle, Ga.; limestone quarries at Ironco, Ga., and an iron furnace at Chattanooga.

#### Holley & Stephenson Property.

The National Bituminous Coal & Coke Co., Eskdale, W. Va., has been incorporated by Arthur E. Wood, E. W. Alexander, L. W. Bostick and associates of Charleston, W. Va. This company has purchased the Holley & Stephenson Coal Co. at \$250,000, including 1200 acres of coal land and two mines with a daily output of 100 tons of coal, employing between 125 and 150 men, located on Cabin Creek.

#### W. H. Skaggs Coal Property.

Henry L. Badham of Birmingham wires the MANUFACTURERS RECORD that the Bessemer Coal, Iron & Land Co. has become interested in the Skaggs property, but that development plans have not yet been considered. This property comprises 40,000 acres of coal land in Tuscaloosa and adjoining counties previously reported purchased for development by W. H. Skaggs of Chicago.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

#### Brookside Mills.

Referring to the enlargement (mentioned last week) of the Brookside Mills, Knoxville, Tenn., F. P. Sheldon & Son of Providence, R. I., the architects, write to the MANUFACTURERS RECORD as follows:

"The addition to this plant consists of an addition to the present sawtooth weave shed and adding two stories to the present spinning mill. Weave shed addition is 247x150 feet; spinning mill addition consists of two stories, 257x130 feet, and the weave shed will have a saw-tooth roof with the usual basement for shafting. Floor beams and rafters of weave shed and mill will be of steel. We estimate the cost will approximate \$100,000 for the building. Contract has been awarded to Sullivan & McNally Company of Paterson, N. J., who have already begun work. We can give no data as yet as to the number of spindles or looms or power equipment, as same has not been definitely decided on."

#### Pickens Mill Enlargement.

Referring to its enlargement, the Pickens (S. C.) Mill writes to the MANUFACTURERS RECORD as follows:

"The addition made to our mill was 86x105 feet, and this building cost about \$20,000. C. F. Grandy, Easley, S. C., was our contractor. We will install 6000 spindles, 160 new looms and 10 cards. We bought the looms from Draper Company, Hopedale, Mass.; spinning from Mason Machine Works, Taunton, Mass.; card-room machinery from Saco-Pettee Company, Newton Upper Falls, Mass.; cost of this machinery, about \$65,000. We employ about 275 operatives, and will increase this number to about 300."

#### Sellers Hosiery Mills.

The Sellers Hosiery Mills, Burlington, N. C., has completed improvements recently in progress at the plant. This company has erected an additional 50x60-foot brick building and added 40 knitting machines, the new equipment having a daily capacity of 3000 pairs of half-hose and costing about \$6000. The Sellers equipment now is 135 knitting machines, 22 looping machines, etc., for a daily capacity of 6700 pairs of half-hose. Its output is 200-needle half-hose in the gray for converters.

#### The Cotton Movement.

In his report for November 22 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 83 days of the present season was 6,504,888 bales, an increase over the same period last year of 104,710 bales. The exports were 3,487,582 bales, an increase of 64,156 bales. The takings were, by Northern spinners, 700,003 bales, a decrease of 25,788 bales; by Southern spinners, 761,664 bales, an increase of 102,657 bales.

#### Ridgeview Hosiery Mill.

The Ridgeview Hosiery Mills Co., Newton, N. C., has been incorporated, with

\$100,000 authorized capital and \$21,000 paid in, by J. Albert Gaither, George A. Warlick and associates of Newton and P. E. Isenhower & Son of Conover, N. C. This company has secured a brick construction mill building, and will install an equipment for knitting hosiery.

#### Seneca Cotton Mills.

The enlargement in progress at the Seneca (S. C.) Cotton Mills will soon be completed. Referring to this, the Monaghan Mills, Greenville, S. C., writes to the MANUFACTURERS RECORD as follows:

"With regard to the new addition just added to the Seneca plant, we have erected a three-story brick building 55x52 feet. This building will take care of our picking machinery and slashing machinery from the old mill. We will add in the old mill additional carding and weaving machinery to take care of the surplus output from our spinning department. The cost of this addition will be approximately \$30,000."

#### Cotton Drilling for Mattresses.

The Universal Safety Mattress Co. will want cotton drilling for mattress ticking. Address S. Preston Edmonds, Merchants' National Bank Building, Baltimore, Md.

#### A \$50,000 Hosiery Company.

E. Waterhouse, G. W. Spivey and J. F. Crawford of Dayton, Tenn., are planning the organization of a \$50,000 company to establish a hosiery mill.

#### Textile Notes.

The Maryville (Tenn.) Hosiery Mills will, it is reported, considerably increase capacity.

The Freize Hosiery Mills, Hendersonville, N. C., will double capacity. This company has 40 knitting machines, dyeing equipment, finishing apparatus, etc.

The Glencoe Cotton Mills, Columbia, S. C., will add 1000 spindles, and has awarded contract for this machinery to the Mason Machine Works of Taunton, Mass.

The Manchester Manufacturing Co., Macon, Ga., will add new machinery, and has awarded contract for this equipment to the Howard & Bullough American Machine Co. of Pawtucket, R. I.

The Jackson Mills, Iva, S. C., will, it is reported, add new spinning machinery. This company is now enlarging its cotton warehouse and installing a suction conveyor from warehouse to picker-room.

The Easley (S. C.) Cotton Mills has doubled the Liberty Mills at Liberty, S. C., previously purchased by the Easley company. The mill now has 20,000 spindles and 600 looms, producing print cloth.

The Patterson Manufacturing Co., China Grove, N. C., will install automatic looms to replace old-type weaving machinery, and has ordered the new equipment from the Draper Company of Hopedale, Mass.

#### To Utilize Tripoli Deposits.

The Volunteer State Mineral Co. has organized with a capital stock of \$50,000 to utilize Tennessee tripoli deposits. It will mine tripoli at Bristol, Tenn., and build a plant for manufacturing polish at Bristol, Va.-Tenn., where it has purchased a two-and-one-half-acre site on the Virginia side of the city. S. L. Hudson of Smyrna, Tenn., president; Edward B. Tucker, vice-president; E. C. Holloway, secretary-treasurer; Dr. I. Steinberg of Nashville, manager. This company is in the market for machinery to pulverize, reduce, wash, grind and bolt tripoli.

## FOREIGN NEEDS

#### Machinery for French Trade.

Societe Generale d'Explosifs, 57 Rue de Chateaudun, Paris, France, writes to the MANUFACTURERS RECORD:

"We desire to get exclusive agencies for France and her colonies from large manufacturing concerns—factories which construct machinery and equipments of current sale and daily use in the various branches of industry. To attain success there should be a frank understanding, and the concern making us its agents should be solid and strong, owners of the patents, makers of good machines (not previously known in France), and the firm ought to give us some marked advantages not only as to agreement, but also as to commissions and prices. We would say that we shall take new offices in January, necessitated by great increase in our business; till then we shall have a little spare time, and we beg you, therefore, to let us know without hesitation of anything that may come to your notice in the line of what we have suggested above. We could not touch pumps, agricultural implements or automobiles, for the French market is already loaded with them, but anything else in the way of useful machinery and appliances, novel equipments, new patents, etc., we can handle with success. We should be happy to hear from some of your American makers. Have them send us information, catalogues, drawings, prices, if you please, and when possible have them write us in French."

#### A Letter from Japan.

Tateish Trading Co., No. 2 Minami-Saegicho, Kiobashiku, Tokyo, Japan, writes to the MANUFACTURERS RECORD:

"Japan wants your machines and raw material, as the country is advancing for industry. If you know any party interested in making good canned goods for crabs and lobsters, we shall be pleased to hear. We mean a party intending to put out a factory in combination with Japanese for the purpose of exporting these articles to America, as this line of fish is very abundant on the coast. When a party be known, we shall give full particulars. We are exporting cotton crepe in large quantity, and beg you to consider if you can deal in this line. If so, we shall be pleased to forward a fine collection of samples, with lowest export quotation. If you do not handle, please be kind enough to give us addresses for dealers."

#### To Assemble Automobile Parts.

M. R. Zenic, 19 Alserstrasse, Vienna, Austria, writes to the MANUFACTURERS RECORD:

"I am greatly interested in American automobiles and have already ordered some, but I am sorry to say that my experience has been costly; packing freight and duties make the handsome sum of \$800 on each car. My notion is that one might be able to avoid so onerous a tax by ordering the separate parts from America and assembling them here. I would therefore be under many obligations if you would put me in contact with suitable parties."

#### Wants American Automobiles.

Gust. Mayer-Dinkel, Mannheim, Germany, writes to the MANUFACTURERS RECORD:

"Please let me have names and addresses of the four first American motor-car factories for heavy traffic."



## MECHANICAL

### Smith Automatic Hollow - Chisel Mortiser.

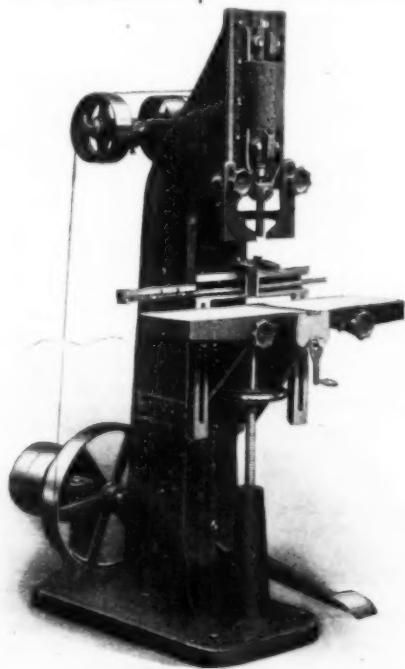
A mortiser is a very important machine in a woodworking factory, as indicated by the fact that the H. B. Smith Machine Co., Smithville, N. J., was founded on the manufacture of mortisers 65 years ago. Previous to that time the mortising of frames was either done by hand or foot power. H. B. Smith patented a power mortising and boring machine in 1847 which revolutionized the manufacture of blinds, and he patented a reciprocating power mortiser for doors in 1852 of which many thousands have been manufactured for use in many parts of the world.

The new mortising machine herewith illustrated is the result of years of careful investigation as to new conditions and modern methods of mortising. It is found that hollow chisels with auger within for removing the chips more nearly meet the requirements than any other tool or process, provided that the machines for operating them are constructed on correct principles. It is now generally

can be made rapidly and at the same time freed from chips ready for use.

The table is quite heavy, with a planed top, and has a vertical adjustment of 14 inches. It also has a screw adjustment to and from the frame of 4 inches, so that the machine will mortise in the middle of a piece  $7\frac{1}{4}$  inches wide. The back part of the table is fitted with a combined guide and hold-down, which has a vertical adjustment for thickness or depth of material, and the guide is provided with gauge stops so as not to require laying out or marking the stock in duplicate work. The table as a whole is mounted on a strong knee, and a hand wheel is provided for adjusting the table to suit the thickness of materials being worked. The table cannot lift up when the chisel withdraws. In addition to the hold-down on the table guide, there is a substantial hold-down attached to the upper framing, which can be adjusted to the depth of mortise required and the table brought up according to the thickness of material being worked. A foot treadle controls the chisel movement.

It is stated that this machine is easy to operate, and will work chisels up to seven-eighths inch wide in hardwood, and



NO. 282-A SMITH AUTOMATIC HOLLOW-CHISEL MORTISER.

conceded that for manufacturing purposes and in cases wherein large numbers of mortises are to be duplicated without change of chisel that the hollow-chisel mortiser is advantageous for the reason that the chisels are not expensive and the automatic feature of this machine repeats the operation as rapidly as the material is fed along in the usual manner for a mortise of any length, and as the mortise is thoroughly cleansed of chips, it is ready for use at a great saving of time.

The new Smith machine is of vertical type, occupying small space, possessing constructive advantages and convenience in operating.

The countershaft, which is in the base, is the most rapidly-running part of the machine except the boring spindle, and all parts being well balanced, the machine runs quietly and without a tremor. The headstock, which carries the chisel and auger, is fitted in adjustable gibbed bearings at the top of the frame, and overhangs the main frame so as to mortise in the middle of large pieces. This is given an automatic reciprocating movement, making 18 to 20 plunges a minute, or as fast as a rapidly-revolving auger will bore; hence it will be seen that mortises

the machine can be used as a boring machine without the chisel for boring holes as deep as four inches.

This machine occupies 28x52 inches floor space, and requires a two-horse-power motor to run it.

### Stroh Process Castings.

The success of the Stroh process castings, made by the Stroh Steel-Hardening Process Co., House Building, Pittsburgh, and extensively used in the Pittsburgh and surrounding steel mills, has called renewed attention to the economy possible to be effected through the use of hard-surface castings. The rapid growth in popularity of cut gears for many classes of work has given rise to many processes for impregnating with carbon or other hardening materials, while the development in cast gearing and other cast parts have been principally along the lines of alloy steels.

This process is designed to combine many of the advantages of both types, i. e., the cut and case-hardened gear with those of the cast-steel gear. Soft steel, while possessed of qualities of great resilience and being easily worked, lacks that resistance to abrasion so necessary to the

wearing life of many machine parts. Case hardening or deeper impregnation increases this resistance to abrasion, and has to a certain extent obviated one of the most important objections to soft steel cast or cut parts. Alloy steel castings, on the other hand, possess this all-important quality of resistance to abrasion, but they are machined by grinding.

The Stroh process castings have alloy steel on the wearing surfaces and soft steel at the bore and other places where machine work may be necessary, the body of the casting proper being of soft cast

gears, etc., as well as from those castings which in service wear away the major portion of their total weight, as, for instance, hammers for pulverizing mills, etc. Owing to the severity of the process used for the superimposition of the Stroh alloy, it is very difficult to cast thin sections; in fact, the manufacturers do not schedule any piece of less than 50 pounds weight.

It is upon the heavier steel and cement mill and railroad parts that the process is finding its greatest vogue. A mill spindle may weigh several hundred pounds, and yet be replaced when a comparatively



GEAR TOOTH MADE BY STROH PROCESS.

steel, while only the actual bearing surfaces are of alloy. Both the depth and the hardness of this alloy stratum are under the control of the operator.

While the method of manufacture of these castings is secret, it is stated that the alloy steel stratum or shell is not an insert, but an integral part of the casting itself, and is apparently superimposed on the soft steel casting by some method either of impregnation or simultaneous pouring. The alloys applied by this process are of several types, but the typical casting bears a stratum of molybdenum-manganese steel which the manufacturer of the castings claims has a high elastic limit and an extremely low coefficient of friction.

It is stated that Stroh process gears



STROH PROCESS SPINDLES.

placed in service under severe conditions have given remarkable records for wear and small abrasion at the pitch line.

The accompanying cut shows a characteristic fracture of the Stroh process casting. The lighter section in the core of the tooth is ordinary soft steel, while the darker section shows the close-grained alloy.

The nature of the casting itself eliminates this process from the field of cut

few pounds are worn away from the bearing surfaces of the wobble. To make such a casting from alloy steel would be extremely expensive, and if bearings were to be turned would be altogether impracticable. By means of this process the special alloy is applied on the bearing surfaces to a depth equal to the thickness of the material worn away in practice, while the body of the casting, being of soft steel, is machined with ease. It is stated that in many of the Pittsburgh steel mills these spindles are in service, and that the one first installed has given several times the tonnage received from soft-steel spindles and shows no signs of wear, and that none have ever worn out as yet. The same applies to coupling boxes, where the surface of the pin receives all wear; to track wheels, where only a minute portion of the total weight is worn away from the tread and flange before replacement occurs; to cast pinions and gears, where only a small proportion of the total weight of the casting is worn away from the teeth before excessive lost motion develops, and to frogs and crossings and similar pieces.

In the case of the spindle shown in the illustration the original weight was 9555 pounds; the weight of the worn-out spindle only some 200 pounds less. It is especially interesting to note that the weight of the molybdenum manganese steel alloy on this spindle is only slightly in excess of 400 pounds; that the alloy slabs constitute an integral part of the casting itself, and that, while the alloy is more dense at the surface, it is so gradually blended into the soft steel that no plane of cleavage can be located. It is not practicable to tell where the soft steel ends and the alloy begins.

In the case of gears the teeth seldom constitute more than 10 per cent. of the total weight of the castings, and not more than one-half of the total mass of the tooth is worn away in practice. The fractured tooth here shown illustrates the fact that this alloy steel is in some manner placed only on the actual wearing surface and to a depth only slightly more than equal to the thickness of material worn away in practice.

# Construction Department

## TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

### BRIDGES, CULVERTS, VIADUCTS

Ala., Mobile.—Mobile County Board of Revenue awarded contract to Nashville Bridge Co. of Nashville, Tenn., at \$15,200 to construct bridge over Dog River; steel draw span, lift type; C. L. Strange, County Engineer, Box 945. (Recently mentioned.)

Ark., Little Rock.—City awarded contract to Hannan-Hickey Bros. Construction Co. of St. Louis, Mo., at \$83,034 to construct viaduct at Third Ave., connecting Little Rock with Pulaski Heights; steel and concrete construction; width, 46 feet; roadway, 36 feet wide, with five-foot walks on either side; wood block paving; electric lighting. Little Rock Railway & Electric Co. will lay double tracks. Following are estimates upon which bids were submitted: Earth and loose rock, 1800 cubic yards; solid rock, 200 cubic yards; concrete slabs and girders, 880 cubic yards; concrete piers and abutments, 2300 cubic yards; concrete sidewalks, 6300 square feet; concrete curbing, 1300 linear feet; concrete plaster work, 1800 square yards; concrete handrail, 1450 linear feet; reinforcing bars, 140,000 pounds; brick paving, five-inch concrete base, 1300 square yards; cressoted block paving, 1480 square yards; steel girders, 300 tons; conduits and curbs, 1300 linear feet; concrete stairway and retaining walls, 330 cubic yards; earth filling, 25,000 cubic yards; curb to be removed, 520 linear feet; curb to be reset, 440 linear feet; paving to be removed, 300 square yards; paving to be relaid, 300 square yards; H. Levinson, engineer. (Call for bids lately noted.)

Fla., Tampa.—City awarded contract to Edwards Construction Co. of Tampa at \$5500 to construct brick bridge across Spanishtown Creek at Horatio St.; D. B. McKay, chairman Board of Public Works. (Call for bids lately noted.)

Ga., Columbus.—Pease-Clarke Construction Co. of Columbus has contract to construct several concrete culverts and viaducts on G. S. F. Electric Railroad.

Ga., Savannah.—Central of Georgia Railway will not build bridge at Savannah. (Recent report incorrect.)

Ky., Whitesburg.—Letcher county will construct three bridges across North Fork; estimated cost, \$16,000. Address County Commissioners.

Md., Easton.—Talbot County Commissioners awarded contract to Raymond Concrete Pile Co., 408-409 Munsey Bldg., Baltimore, Md., at \$51,500 to construct concrete bridge on Miles River Rd. between Easton and Unionville; length, 1000 feet; Joseph B. Harrington, County Clerk. (Call for bids lately noted.)

Mo., St. Louis.—J. D. Houseman, general manager St. Louis, Belt, Illinois & Eastern Traction Co., 701 Roe Bldg., advises that soundings, plans and cost estimates have been made for proposed steel bridge across Mississippi River, but company is not ready for construction and dates are not set; will probably not be ready to announce plans before February; bridge is reported to cost \$1,500,000.

N. C., Charlotte.—Mecklenburg and Lincoln counties awarded contract at \$18,038 to Virginia Bridge & Iron Co. of Roanoke, Va., to construct steel bridge across Catawba River, connecting Mecklenburg and Lincoln counties; length, 689 feet; three river spans resting on four concrete piers in river, each span being 153 feet long; approaches 120 feet long

### CLAYWORKING PLANTS

Fla., Tampa.—Tile, etc.—Tampa Tile & Ornamental Co., capital stock \$30,000, incorporated; Emilio Sarrio, president; N. Powers, treasurer; Parsons M. Garcia, secretary.

Ky., Lexington.—Clay Products.—Clay Products Co. organized by Thomas I. Walker and others; purchased 400 acres clay lands and will develop.

Ky., Madisonville.—Drain Tile.—Madisonville Drain Tile Co. increased capital stock from \$1000 to \$10,000.

N. C., McDonalds.—Bricks.—J. L. Townsend will erect brick plant; ordinary construction; machinery to include 75-horsepower engine and boiler and brick machinery; cost \$5000 to \$10,000; daily capacity, 25,000 to 50,000 common bricks. (See "Machinery Wanted.")

Tenn., Pinson.—Pottery.—F. E. Robbins of Jackson, Miss., purchased Pinson Pottery Co.'s plant, including two clay banks and about 60,000 gallons of manufactured stoneware; purchase price \$5000; will operate.

Tex., San Antonio.—Drain Tile.—J. W. Schuchart, 2318 Buena Vista St., contemplates establishment of plant to manufacture concrete porous drain tile for sub-irrigation and drain tile.

Tex., Ferris.—Bricks.—Ferris Pressed Brick Co. will rebuild plant recently reported burned at loss of \$20,000.

### COAL MINES AND COKE OVENS

Ala., Birmingham.—Kyomle Coal Co., capital stock \$50,000, incorporated; H. W. Perry, president; T. B. Perry, secretary-treasurer; will develop coal mines in Bibb county.

Ala., Blocton.—H. L. Badham, Birmingham, Ala., wires Manufacturers Record: "Bessemer Coal, Iron & Land Co. has become interested in property with Mr.

associates of Charleston, W. Va.; purchased Holley & Stephenson Coal Co. at \$250,000, including 1200 acres coal land and two mines with daily output 100 tons coal; Cabin Creek properties.

W. Va., Hawks Nest.—River Valley Colliery Co., capital stock \$25,000, incorporated by Daniel Boone and A. M. Boone of Hawks Nest, D. W. Boone and G. A. Thompson of Lookout, W. Va., and W. F. Boone of Ronceverte, W. Va.

W. Va., Huntington.—Nord-Dean Coal Co. acquired lease on 1000 acres of coal land in Guyan Valley field from Dingess-Rum Coal Co., J. L. Caldwell, president.

W. Va., Huntington.—Coal & Timber Co., Robson-Prichard Bldg. (recently noted incorporated by S. J. Hyman and others), advises that company was organized by representatives of large coal and timber interests in West Virginia and adjoining States; will handle coal and timber lands.

### COTTON COMPRESSES AND GINS

N. C., Warrenton.—Edmund White will rebuild (in early spring) cotton gin; 470-saw gin with two suction outfits and double press; probably operated by electricity. (Recently reported burned.)

Okla., El Reno.—Committee consisting of O. A. Shuttie, L. B. Myers and others is promoting erection of cotton gin to cost \$5000.

### COTTONSEED-OIL MILLS

Ala., Gadsden.—Boaz Cotton Oil Co., Boaz, Ala., contemplates establishing plant; reported to invest \$50,000.

Ala., Columbia.—Columbia Oil Mills will rebuild plant burned at loss of about \$50,000.

### DRAINAGE AND IRRIGATION

Ark., Little Rock.—Directors Fourche Drainage District, Warren E. Lenon, secretary, instructed engineers of district, Lund & Hill, 201½ W. 2d St., Little Rock, Ark., to prepare plans and advertise for bids for installation of pumping plant at lower end of district to lift water over levees into Arkansas River during times of flood; estimates to be submitted both for use of steam and electricity; cost about \$100,000. (Previously noted at various times.)

Fla., Murdock.—Murdock Drainage District (DeSota county) organization about completed; Cravens & Kimmell, Rooms 1-2 Daniel Bldg., Arcadia, Fla. (recently noted as engineers), advise as follows: All preliminary surveys and estimates have been made, and plans, profiles, maps, etc., have been filed with County Commissioners; about 18,000 acres in district, which includes town of Murdock; about 15 miles main canals and 35 miles of laterals to be constructed; total excavation 600,000 cubic yards.

Fla., Kissimmee.—City awarded contract to W. A. Middlemas at about \$19,000 to construct three-mile canal; bottom width, 10 feet; top width, 23 feet.

La., Gretna.—Jefferson-Plaquemines Drainage Commission, 309 Cotton Exchange Bldg., New Orleans, La., advises further relative to recently-noted work: Canals 10 to 60 feet wide and 5 to 12 feet deep; approximate cost \$350,000, including levees, canals and pumping plant, latter to have capacity of 620,000 gallons per minute, 5-foot lift; drain 37,700 acres; location, Jefferson and Plaquemines parishes, across Mississippi River from New Orleans; lands principally for agriculture; open machinery proposals January 15. (Bids for pumping equipment recently noted.)

Mo., Cape Girardeau.—George S. Hanford, secretary-treasurer, Little River Drainage District, 304 Himmelberger-Harrison Bldg., advises as follows relative to recently-noted letting of contracts: District embraces about 500,000 acres; forms part of counties of Cape Girardeau, Scott, Stoddard, New Madrid, Dunklin and Pemiscot; extends 90 miles from north to south, and has average width of 6 to 14 miles; construction to be begun early in coming year; approximate cost of improvements, \$4,500,000; contracts let as follows: S. B. Hunter, 804 Central National Bank Bldg., St. Louis, Mo., contracts 1 to 8, at \$.0816 per cubic yard, yardage about 5,456,098; Clyde A. Walb, LaGrange, Ind., contract 9, at \$.0623, 894,489 yards, and contract 14, at \$.0636, 541,115 yards; Timothy Foohey Dredging Co., Fort Wayne, Ind., contract 10, at \$.0750, 994,150 yards, and con-

## PROPOSAL ADVERTISEMENTS

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on Lincoln county side of river and 100 feet on Mecklenburg county side; two abutments and four solid concrete piers, latter sustaining three central spans of bridge over river proper; 16-foot roadway capable of supporting 15-ton road roller.

Tex., Huntsville.—Walker County Commissioners awarded contract for construction of two steel frame bridges, one over Nelsons Creek on Calhoun Ferry Rd., span 75 feet, and other over Hadley Creek, span 50 feet; cost \$2250.

Va., Suffolk.—Nansemond County Supervisors will construct steel bridge over Bennett's Creek costing about \$6000; H. M. Darden, engineer in charge.

### CANNING AND PACKING PLANTS

Ala., Summerdale.—W. S. Shure and others will operate canning plant; install new machinery. (See "Machinery Wanted.")

Fla., Brooksville.—Brooksville Packing & Preserving Co.'s canning plant (recently noted as being remodelled) will have daily capacity of 3000 cans of fruit and vegetables; additional equipment will include closed process kettle, etc.; L. Mayer, manager; T. S. Hunt, secretary. (See "Machinery Wanted.")

Ky., Whitesburg.—Sam T. Webb of Vanceburg, Ky., is organizing company to establish cannery.

Md., Baltimore.—John Boyle Co., Wolfe and Thames Sts., awarded contract to John J. Moylan, 117 E. Center St., Baltimore, to erect addition to oyster and fruit packing plant; plans by Theodore Wells Pietsch, American Bldg., Baltimore. (Recently mentioned.)

Skaggs; development plans not yet considered." (Property referred to comprises 40,000 acres coal land previously reported purchased for development by W. H. Skaggs, 1024 Lawrence Ave., Chicago, Ill.)

Ala., Gadsden.—North Alabama Coal, Iron & Railroad Co. will build coal tippie and install picker; double output of mines.

Ala., Tuscaloosa.—Tuscaloosa Export Coal Co. incorporated to develop coal mines in Tuscaloosa county, penetrated by Tuscaloosa Mineral Railroad; proposed daily capacity, 1000 to 1500 tons coal; W. J. Gilmore, president; A. J. Gilmore, vice-president-treasurer; M. R. Gilmore, secretary; all of Birmingham, Ala. (Recently mentioned.)

Ala., Tuscaloosa.—Castellano & Dean Realty Co. of Jacksonville, Fla., will develop coal mines; daily capacity, 800 to 1000 tons.

Ky., Providence.—Clear Creek Coal Co., F. V. Ruckman, president, now developing 490 acres land with daily output of 1200 tons, will next year install either a 200-kilowatt generator and mining machines or an air plant.

Mo., Rich Hill.—Bates Coal Mining & Mercantile Co., capital stock \$2500, incorporated by S. B. Barr, M. E. Fulbright, Homer Humphrey and Zera Bellier.

Tenn., Chattanooga.—C. E. Buek writes to Manufacturers Record: "Properties of Chattanooga Iron & Coal Co., for which I was appointed receiver, sold and bid in by committee representing bondholders. I will act as manager for bondholders until new company is organized, which I expect will take about 30 days longer; will probably apply for charter very soon."

W. Va., Eskdale.—National Bituminous Coal & Coke Co. incorporated by Arthur E. Wood, E. W. Alexander, L. W. Bostick and

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



tract 17, at \$0.647, 3,113.293 yards; Kochtitzky & Hawley, Cape Girardeau, contract 11, at \$0.550, 2,899,147 yards; William Crumpecker, Morehouse, Mo., contract 12, at \$0.750, 441,551 yards, and contract 18, at \$0.900, 609,188 yards; John S. Kochtitzky, Cape Girardeau, contract 13, at \$0.700, 528,970 yards; Chapman Bros., Celina, O., contract 15, at \$0.738, 440,537 yards; James F. Cox, Sikeston, Mo., contract 16, at \$0.407, 835 yards; Weage & Tyler, Coldwater, Mich., contract 19, at \$0.830, 3,135,491 yards; Canal Construction Co., 186 Madison St., Chicago, Ill., and McWilliams Bros., 1600 Steger Bldg., Chicago, contract 20, at \$0.754, 2,431,308 yards; contract 25, at \$0.754, 4,484,539 yards, and contract 26, at \$0.754, 2,799,637 yards; Otto Kochtitzky, Cape Girardeau, contract 21, at \$0.692, 888,946 yards; W. D. & G. N. Lawwell, Kennett, Mo., contract 23, at \$0.875, 503,889 yards, and contract 24, at \$0.849, 779,110 yards; N. C. McGinnis & Co., Bement, Ill., contract 22, at \$0.875, 551,388 yards; approximate total, 31,301,001 yards; construction at north part of district not yet let.

Tex., Hale County.—Robert Alley of Hale Center, Tex., is organizing company with \$100,000 capital stock to develop well-pumping irrigation in Hale county.

Tex., Houston.—Trinity River Irrigation District, J. E. Broussard, president, has bonds amounting to \$125,000 approved to be expended in construction of proposed system to irrigate 6000 acres in rice-growing section of Texas; plans to construct fresh-water reservoir with capacity of several million gallons, dam across Trinity Bay, levee to prevent salt water from entering reservoir and intake, and cut into bay from river; proposed dam will form lake six miles long.

Tex., Mission.—Mission Canal Co., J. L. Malone, receiver, will issue certificates for \$150,000 for further development of 25,000 acres in Rio Grande Valley; expenditure outlined as follows: Discharging present indebtedness, \$30,613; \$50,000 in purchase of centrifugal dredge agitator and other machinery; \$30,000 in building levee from first and second lifts to pumping plant and acquiring about 40 acres for right of way; \$15,000 for repairing and replacing water gates; \$15,000 in cleaning and repairing laterals; \$1685 for teams, wagons, scrapers, etc.; \$50,000 for completing canals and irrigating third lift.

### ELECTRIC PLANTS

Ark., Little Rock.—Arkansas Cold Storage Co., Ed Cornish, president, awarded contract for electrical equipment for power-house, including two 1000-kilowatt Curless turbines, electric generators, high-pressure boilers, switchboard, motors, etc.; power-house, 95x100 feet, is in course of construction, foundation being laid for turbines; C. E. Ross, electrical engineer, is in charge. (Previously mentioned.)

Ark., McGehee.—City will construct electric-light plant and water-works; plans and specifications at office of G. B. Ewing, secretary of Commissioners, and of Missouri Valley Engineering Co., Mitchell, S. D.; bids opened December 16 by Scott McGehee, chairman of Commissioners. (See "Machinery Wanted.")

Fla., Chipley.—City is considering granting of franchise for construction of electric-light plant. Address The Mayor.

Fla., Green Cove Springs.—Town voted \$5000 bond issue to improve light and water plants; recently mentioned. Address Town Clerk. (See "Road and Street Work.")

Fla., Pensacola.—City will vote on \$100,000 bond issue to construct electric-light plant. Address The Mayor. (See "Miscellaneous Construction.")

Ga., Adairsville.—Town granted franchise to Georgia Railway & Power Co. of Atlanta, Ga., to distribute electricity.

Ga., Atlanta.—Joel Hurt will build power and heating plant on Edgewood Ave. to supply power and steam to building being erected; estimated cost, \$12,000.

Ky., Adairville.—Adair Light & Heating Co., incorporated by M. E. Orendorf, G. A. Smith and J. B. Fisher; will construct electric-light plant.

La., Lafayette.—Louisiana Traction & Power Co., capitalized at \$250,000, proposes to construct electric plant in connection with proposed railways; president, J. A. Landry; offices in Moss Bldg.

N. C., Charlotte.—Winchester Electric Co., 11 E. Trade St. (recently noted increasing capital stock to \$50,000) is electrical contractor and dealer in fixtures and supplies.

Okla., Dewey.—City granted franchise to E. B. Jennings to construct electric-light plant.

Okla., Oklahoma City.—Oklahoma Gas &

Electric Co. will consider on December 10 increasing capital stock to \$5,100,000.

Tex., Jefferson.—Jefferson Ice & Light Co., incorporated by D. C. Driskill and others. (See "Ice and Cold-storage Plants.")

Tex., Nacogdoches.—City will expend \$20,000 to erect electric-light plant to develop 200 horse-power; erect 40x85-foot brick building; cost \$3000 to \$4000; date of opening bids not set; plans prepared by Scott Consulting Engineer Co., 632 Wilson Bldg., Dallas, Tex. (Recently noted.)

Va., Purcellville.—City voted \$5000 bond issue for street lighting and improvement. Address The Mayor.

### FERTILIZER FACTORIES

Ga., Dublin.—Dixie Guano Co., capital stock \$30,000, incorporated to establish fertilizer plant.

### FLOUR, FEED AND MEAL MILLS

Tenn., Alexandria.—J. O. Patton contemplates rebuilding flour mill occupied by Star Milling Co.; plans not definite. (Recently reported burned.)

Tenn., Tullahoma.—Middle Tennessee Manufacturing Co., D. S. Riddle, proprietor, is installing additional equipment in flour mill; daily capacity, 350 barrels flour and wheat by-products. (Recently noted as to lease building and install machinery.)

### FOUNDRY AND MACHINE PLANTS

Ala., Mobile.—Machinery.—Adams Machinery & Manufacturing Co., capital stock \$30,000, incorporated by W. J. Adams, president; L. G. Adams, secretary, treasurer and general manager; Ashbel Hubbard, vice-president.

Ga., Dalton.—Stoves.—J. F. James, Chattanooga, Tenn., purchased Mascot Stove Manufacturing Co. and will manufacture stoves, patented grate basket, and do general repair work; capital stock, \$15,000; Mr. James will be president; other officers not elected. Address, care of Mascot Stove Manufacturing Co.

Ky., Louisville.—Machine Shop.—Bilger & Harley, 209 S. 5th St., will build machine shop; install drill press.

Miss., Yazoo City.—Cotton Presses.—Orr Manufacturing Co. will hold meeting November 26 to organize to manufacture Orr automatic cotton-oll press; Cliff Orr, Dever Bldg., recently noted as planning organization of company. (See "Machinery Wanted.")

Mo., St. Louis.—Electrical Machinery.—Wagner Electric Manufacturing Co. will build brick addition to machine shop No. 7; cost \$10,000.

Mo., St. Louis.—Fireproof Metal, etc.—Mesker Bros. Iron Co. (recently noted incorporated with \$50,000 capital stock by Bernard T. Mesker, Frank Mesker and John L. Mesker) continues former partnership of Mesker & Bro.; manufactures fireproof metal, wire-glass windows, etc.

S. C., Florence.—Plows.—Universal Plow Co. (recently reported incorporated by J. A. Huggins and others) will establish plant; acquired plow works at Red Springs, N. C., and will remove to Florence.

S. C., Denmark.—Machinery.—Denmark Machine Works Co., W. J. Platt, president, Aiken, S. C. (recently noted incorporated with \$20,000 capital) will erect plant; two stories; 40x80 feet; wood frame; iron siding; felt roof; also erect office building same size; construction by company's force. (See "Machinery Wanted.")

Tenn., Knoxville.—Iron Works.—Sanford-Day Iron Works purchased 33 acres on which to build iron works; cost of site reported as \$20,000; cost of plant, \$75,000.

### GAS AND OIL DEVELOPMENTS

Ark., Fort Smith.—Western Arkansas Oil Co., capital stock \$50,000, incorporated by W. T. McBride (president), J. M. George and F. L. Wolverton; owns oil, gas, coal and mineral leases on lands in Logan county.

Okla., Cushing.—Creek County Gas Co., capital \$40,000, incorporated by W. J. Rowland and J. W. King of Pittsburgh, Pa., and R. A. Lowry of Stillwater, Okla.

Okla., Mounds.—National Oil Co., capital stock \$10,000, incorporated by H. M. Walker, S. W. Anthony and J. I. Brown.

Okla., Henryetta.—Red Oil Co., capital stock \$25,000, incorporated by J. G. Fretwell, W. C. Poague, C. H. Kellogg and Julia Buchanan.

Okla., Oklahoma City.—Oklahoma Gas & Electric Co. will consider on December 10 increasing capital stock to \$5,100,000.

Okla., Shawnee.—Shawnee Oil & Gas Co., capital stock \$50,000, incorporated by J. P.

Smith, W. A. Ashland, T. W. Whitaker, C. R. Harryman and Frank W. Boggs.

Okla., Stilwell.—Flint Oil Co., capital stock \$10,000, incorporated by F. A. Blanck, T. E. Wyley and George Cameron.

Okla., Tulsa.—Rosemount Oil Co., capital stock \$100,000, incorporated by John P. Given, T. T. Given and F. W. Given.

Tex., Brownwood.—Brownwood Oil & Development Co., capital stock \$5000, incorporated by John F. Wilson, Harry Knox and W. R. Schrimmegeour.

Tex., Houston.—Rucker Oil Co., capital stock \$5000, incorporated by B. L. Vineyard, W. H. Telschew and C. T. Rucker.

West Virginia.—West Virginia Traction & Electric Co., Wheeling, W. Va., advises has purchased properties of Virginia Oil & Gas Co.; not yet in possession, and plans for development are not ready for announcement.

### ICE AND COLD-STORAGE PLANTS

Fla., Jacksonville.—Florida Ice & Coal Co., A. M. Dixon, president, will hold meeting December 13 to consider increasing capital stock from \$100,000 to \$200,000.

La., Algiers, Station A, New Orleans.—Cahero Bros. will enlarge ice plant, increasing daily capacity to 20 tons; cost \$20,000; machinery purchased.

Tex., Houston.—Henry Henke will build addition to ice plant; awarded contract for concrete foundation to Spence & Howe of Port Arthur, Tex.

Tex., Waco.—Geyser Ice Co. will improve plant.

Tex., Jefferson.—Jefferson Ice & Light Co., capital stock \$30,000, incorporated by D. C. Driskill, W. M. Driskill and M. M. Benefield.

### LAND DEVELOPMENTS

Ala., Birmingham.—Birmingham Motor & County Club (John T. Yeatman and others) will increase capital stock from \$15,000 to \$100,000 and accept proposition of L. E. Klobner and associates to construct automobile speedway in Shades Valley; as soon as official action is taken construction of speedway and of dam lake two miles in extent will be begun. (Recently mentioned.)

Ga., Atlanta.—North Georgia Fruit Co., 705 Third National Bank Bldg. (recently noted incorporated, \$50,000 capital stock), will develop land at Clarksville, Ga. (See Ga., Clarksville.)

Ga., Clarksville.—North Georgia Fruit Co., 705 Third National Bank Bldg., incorporated with \$50,000 capital stock to develop 500 acres as apple orchards; John T. Lynch, president; J. H. Hicks, vice-president and general manager; Thos. W. Jackson, treasurer.

Ga., Lagrange.—Lagrange Development Co., capital stock \$100,000, incorporated by Fuller E. Callaway, C. V. Truitt, J. H. Edmondson and others.

Ga., Macon.—Georgia Pecan Orchard Co., capital stock \$100,000, incorporated by F. P. Mansfield, J. S. Seelye and B. H. Edwards to grow nuts, fruit, etc., principally pecans.

Ky., Lexington.—City voted \$50,000 bond issue for park improvements; J. E. Cassidy, Mayor. (Recently mentioned.)

La., Batchelor.—The Lake Side Co., capital stock \$50,000, incorporated to cultivate sugarcane, cotton, etc.; Robert T. Clark, president, Natchez, Miss.; John R. McGivaren, vice-president; Eugene Bouchaud, secretary-treasurer, both of Batchelor.

Miss., Poplarville.—Southern Plantation Co., E. S. Worthington, general manager, Cleveland, O., purchased 5000 acres cut-over land at Poplarville and will develop; divide into 40-acre tracts; cultivate 2000 acres for its own account.

N. C., Asheville.—George S. Powell has contract to develop DuBose property, five miles from Asheville, containing about 300 acres; will divide tract into about 100 plots of three acres each and sell for homes, construct roads and streets, etc.; about 185 acres are cleared.

N. C., Fayetteville.—Farming & Improvement Co., capital stock \$30,000, incorporated by Newton H. Smith, C. J. Cooper and J. A. MacLean, Jr.

Okla., Shawnee.—City voted \$50,000 bond issue for park purposes. Address The Mayor.

Tenn., Chattanooga.—W. B. Smith of Meredith, N. H., contemplates establishing dairy farm.

Tex., Cometa.—W. J. Armstrong wires the Manufacturers Record: "Dimmit and Zavalla county enterprise will be colonized through Rev. J. R. Vilatte of the Orthodox Catholic Church, Archbishop under Antioch; will include French, Italians, Armenians,

Sicilians, Poles, Servians, Belgians and Swiss; there will also be farmers brought from all the Northern States to this colony." Mr. Armstrong (address 502 Moore Bldg., San Antonio, Tex.) states further, by letter, that land is about 12 miles north of Crystal City, and extends to within three miles of Carrizo Springs; Cometa, with its school, several stores and church, is located upon tract; planned to drill wells for every 40-acre tract; further information obtainable from Chas. N. Galland, care of Union State Bank, Minneapolis, Minn.

Texas.—Bonanza Stock Farming Co., 105½ Capitol St., Charleston, W. Va. (recently noted incorporated with \$20,000 capital stock at Charleston), will develop 2500 acres of land in Texas for farming purposes; cost of improvements, \$10,000; George Cleek, president; Frank Blankenship, vice-president; W. C. Greenlee, secretary; D. L. Sellsbury, treasurer. (See "Machinery Wanted.")

Tex., San Antonio.—San Antonio Floral & Nursery Co., capital stock \$10,000, incorporated by H. G. De Jagers, Frederick Murphy and G. H. Schneider.

Va., Portsmouth.—Shoulder's Hill Land Corporation, capital stock \$18,000, chartered; S. Mitchell, president, Newberlin, N. C.; W. Van Hardin, vice-president, Wilmington, N. C.; Charles R. D. Reed, secretary-treasurer, Norfolk, Va.

### LUMBER MANUFACTURING

Ky., Metcalfe County.—Elzy Mitchell of Glasgow, Ky., purchased timber land and will develop.

Ky., Glasgow.—Lawrence Bros. of Tompkinsville, Ky., purchased timber land on East Fork Creek; are erecting sawmill.

La., Madison Parish.—R. Mower of Rockford, Ill., purchased 2640 acres timber land.

La., Tensas Parish.—Indianapolis (Ind.) syndicate purchased from Howard Cole Company of Chicago, Ill., 35,000 acres timber land in Tensas parish.

Miss., Enterprise.—Kentucky shingle-mill operators purchased from N. C. Moore 20 acres near Enterprise and will build mill.

Miss., Hukly (not a postoffice).—Ferguson & Palmer Timber Co. of Paducah, Ky., purchased 10,000 acres oak timber land at Hukly and will remove equipment from Mercer, Tenn., to Hukly; also reported to remove mill having daily capacity of 80,000 feet lumber from Paducah, Ky., to Hukly.

Miss., Pearlinton.—Potvanc & Favre Lumber Co., Pearlinton, and New Orleans, La., sold 5500 acres Hancock county timber land, sawmill, planer, drykiln, marine equipment, etc., at \$161,250.

Miss., Bude (not a postoffice).—T. J. Spragins & Son, Fenwick, Miss. (recently noted to erect sawmill), state they have contracted for hardwood timber of Homochitto Lumber Co. in Franklin and Amite counties; red and white oak, poplar, ash and gum; mill capacity to be about 25,000 feet daily; lease life probably 15 years; logs to be delivered at Bude mill by Homochitto Lumber Co.; L. T. Spragins, junior member of firm, to be manager at Bude.

Miss., Waynesboro.—Robinson Land & Lumber Co. of Chicora, Miss., purchased 12,000,000 feet pine timber in Wayne county for \$60,000.

Mo., Kansas City.—Lovejoy Planing Mill Co., incorporated with \$20,000 capital stock by Cecil E. Lovejoy, Thomas W. Nelson and C. Edgar Lovejoy.

Tex., El Paso.—Crawford Lumber Co., capital stock \$10,000, incorporated by James Crawford, W. A. Cannon and C. J. Anstrand.

Va., Norfolk.—Richmond Cedar Works awarded contract to erect plant to replace burned mills; 60x158 feet; two stories; cost \$8000; cost of equipment \$35,000; daily capacity, 100,000 feet sawn timber. (Recently noted under "Woodworking Plants.")

### METAL-WORKING PLANTS

Md., Baltimore.—Cans.—Tyler Can Co., 1409 Eastern Ave., will build addition to plant; probably brick construction.

### MINING

Ala., Birmingham.—Sand.—J. J. Farmer Sand Co., capital stock \$25,000, incorporated; J. R. Maloney, president; J. J. Farmer, vice-president-general manager; W. L. Slummat, Jr., secretary-treasurer.

Ga., Canton.—Marble.—Consolidated Marble & Milling Co. purchased plant of Gober

Marble Co. of Marietta, Ga.; will remove to Canton and consolidate with Canton plant.

Me., Joplin-Lead and Zinc.—Otis Mining Co., capitalized at \$20,000, incorporated by Harvey H. Lord, Anna N. Lord and Otis White.

Okla., Albion-Gold.—Klamich Gold Mining Co. will incorporate with \$100,000 capital stock to develop 440 acres of gold property; bids opened for machinery in about 60 days; William Cohn, Fort Smith, Ark., secretary; H. M. McDonald, manager; main office address, Fort Smith; Mr. McDonald and others recently noted as leasing land from J. M. Ashlock. (See "Machinery Wanted.")

Okla., Woodford—Asphalt.—A. Schneider and A. C. Schlesinger of New York contemplate development of asphalt mines on 960 acres land near Woodford.

S. C., Horrell-Kaolin.—Palmetto Kaolin Co., Harry Katz, president, 261 Broadway, New York, will mine kaolin; develop 400 acres; daily output mines, 100 to 150 tons. (Recently mentioned under Columbia.)

Tenn., Butler-Tripoli.—Volunteer State Mineral Co. will develop tripoli deposits; establish polish factory at Bristol, Va.-Tenn. (See "Miscellaneous Plants.")

Tex., Big Hill-Sulphur.—Gulf Sulphur Co. organized to develop sulphur deposits; J. M. Allen, general manager, and Hugo Spitzer, superintendent; offices in Laclede Bldg., St. Louis, Mo.; Mr. Spitzer writes to Manufacturers Record that company is not now prepared to state details.

Tex., San Marcos-Gravel.—San Marcos Gravel Co. will develop 32 acres of gravel property; cost of steam shovels (purchased) \$4800; no further equipment needed at present; C. L. Hopkins, president; J. M. Capes, vice-president; William P. Rylander, secretary-treasurer. (Recently noted incorporated with \$10,000 capital stock.)

Tex., Sierra Blanca-Silver, Lead and Marble.—Thos. R. Owen (recently noted to develop silver mines) states he and associates of Sierra Blanca are opening silver-lead mine, but work is in prospect stage, not ready for machinery bids. Mr. Owen is also interested in proposed development of variegated marble deposits near Sierra Blanca.

### MISCELLANEOUS CONSTRUCTION

Fla., Pensacola-Docks.—City votes December 30 (changed from January 14) on \$400,000 bond issue for municipal improvements; number of docks to be determined by Board of Bond Trustees; \$300,000 of issue will be expended for dock, \$100,000 for connecting railroads, and \$100,000 for electric-light plant. Address The Mayor. (Recently incorrectly noted under Fla., Tampa.)

Fla., Tampa-Docks.—City is proceeding with preliminary details for construction of municipal docks on estuary; estimated cost \$100,000, provided for out of \$1,700,000 bond issue previously reported voted for municipal improvements; bonds not sold nor definite steps taken toward construction; dredging of estuary to full depth will not be completed for several months; D. B. McKay, Mayor. (City of Pensacola, Fla., not Tampa, as lately stated, will vote on \$400,000 bond issue for construction of docks.)

Ga., Augusta-Bulkhead, etc.—River and Canal Commission will construct reinforced concrete bulkhead and iron gate across Hawks Gulley between Broad St. and Savannah River; height of masonry, 50 feet; length of bulkhead, 122 feet; two wing walls, each 222 feet long; 10 gates, 5x12 feet, and about 400 cubic yards concrete; receives bids until December 2; Nisbet Wingfield, chief engineer; recently mentioned. (See "Machinery Wanted.")

Ga., Rome—Lock Gates.—Pennsylvania Bridge Co. of Pittsburgh, Pa., is lowest bidder at about \$10,000 to construct two lock gates at new lock on Coosa River being constructed at Mayo's Bar, eight miles below Rome; Earl I. Brown, major engineers, United States Engineer Office, Montgomery, Ala. (Call for bids lately noted under "Machinery Wanted.")

Ga., Savannah-Dredging.—Home Dredging Co. of Mobile, Ala., is lowest bidder for dredging in harbor at Savannah from Seaboard Air Line Railway bridge to foot of Kings Island, about two miles; estimated to require removal of 722,000 cubic yards material; Dan C. Kingman, Colonel, Engineers, (Call for bids lately noted under "Machinery Wanted.")

La., Alexandria-Levee.—Red River, Atchafalaya and Bayou Boeuf Levee Boards awarded contract to H. C. Smith of New Orleans, La., to construct 300,000 cubic yards of levee

on Bayou Des Glaizes in Avoyelles parish, between Spurlock and Mill Bayou, and to C. L. Coco to construct 10,000 cubic yards of levee at Hamburg on Bayou Des Glaizes.

La., Baton Rouge-Docks.—Standard Oil Co. (main office, 25 Broadway, New York) will build additional docks at its refinery north of city; construction begun.

La., New Orleans-Levee.—State Board of Engineers, New Orleans Court Bldg., awarded contract to Newman & Wilds to enlarge levee in front of Plaquemine City, requiring 25,000 cubic yards earthwork; Irwin McGinnis is lowest bidder to construct Du Puy levee, about 10,000 cubic yards earthwork enlargement; Donovan & Daley are lowest bidders to construct Wilson Point to Lower Parish Line levee, 100,000 cubic yards of earthwork enlargement. (Call for bids lately noted.)

La., New Orleans—Dock.—Dock Board, Orleans Levee Board, B. F. Youkum of New York (chairman executive board of St. Louis & San Francisco Railroad) and A. D. Lightner of New Orleans (president New Orleans Terminal Co. and general agent of executive department of railroad) arranged details and decided to soon begin construction of 1500-foot wharf from Louisa to Lesseps St.; wharf will be equipped with fireproof sheds, freight-handling apparatus and four fruit conveyors; estimated cost, \$500,000. (Previously mentioned.)

La., Tallulah—Levees.—Fifth Louisiana Levee District, J. T. McClellan, president, will construct following work on right bank, Mississippi River, Madison parish: Milliken Bend levee, enlargement and topping; 40,000 cubic yards; bids received November 30. (See "Machinery Wanted.")

Md., Baltimore—Pier.—Board of Awards receives bids until December 4 for construction of timber and concrete pier southward from Thames St. between Broadway and Ann St. and for paving adjacent streets; O. F. Lackey, harbor engineer; previously mentioned. (See "Machinery Wanted.")

Va., Norfolk-Canal.—Arthur C. Freeman, Jr., Norfolk, has been awarded contract to survey right of way for proposed Chesapeake & Albemarle Canal and construct concrete markers.

Va., Richmond-Tunnel.—City will construct concrete arch for extension of east end of Chesapeake & Ohio Railway tunnel, near 30th and Grace Sts.; Charles E. Bolling, City Engineer, receives bids until November 29. (See "Machinery Wanted.")

### MISCELLANEOUS ENTERPRISES

Ala., Bessemer-Grain.—T. D. Lewis Grain Co., capital stock \$25,000; T. D. Lewis, president; W. E. Bonham, vice-president; W. B. Vines, secretary-treasurer.

Ala., Birmingham-Laundry.—Ideal Laundry Co., C. H. Morgan, president, 115 N. 21st St., has taken over Model Laundry Co.'s plant and will operate. (Recently noted incorporated with \$5000 capital stock.)

Ala., Montgomery-Ice Delivery.—The Ice Delivery Co., capital stock \$30,000, incorporated by W. B. Stratford, E. Burnett, N. Burns and W. M. Williams.

Ky., Louisville-Towboat Line.—Huntington & St. Louis Towboat Co., capital stock \$20,000, incorporated by J. A. Donaldson, W. Hamilton Bruat, J. W. Barber and T. A. Rowland, all of Pittsburgh, Pa.; main offices in Louisville.

La., New Orleans-Steamboat Line.—Chicago, Peoria & New Orleans Transportation Co., capital stock \$500,000, incorporated with Edward C. White, president; C. G. Alexander, secretary-treasurer, both of Chicago, Ill.; J. F. Martley, vice-president, Peoria, Ill.

La., Winnfield-Publishing.—J. R. Jones, W. B. Nimmo and R. B. Kenedy will organize company with \$10,000 capital stock to continue publication of newspapers.

Md., Baltimore—Electric Lamps.—Union Light & Supply Co. incorporated with \$10,000 capital stock by Harry Hechheimer, 414 Law Bldg.; Charles B. Shingluff and Parvis Rolph.

Md., Baltimore—Painting.—Central House Painting Co. incorporated with \$1000 capital stock by Emil C. Steibig, Bernard Collier, 1718 E. Fairmount Ave., and William C. Clift.

Miss., Meridian—Printing.—The Keeton Company, capital stock \$10,000, incorporated by J. L. Arky and C. A. Keeton.

Mo., St. Louis—Specialties.—Hachmann Specialty Co. incorporated with \$25,000 capital stock by John E. Earengight and Alfred A. Eicks.

Mo., St. Louis—Contracting.—Wegener Bricklaying & Contracting Co., capital stock \$2000, incorporated by John, Ben and Kate Wegener.

N. C., Greenville—Publishing.—Independent

Publishing Co., capital stock \$25,000, incorporated by S. T. Hooker, J. F. Brinkley, W. L. Rice and D. S. Spain.

Okla., Oklahoma City-Incinerator.—C. R. Goucher, City Clerk, received bids until November 26 on garbage destructor and dead-animal destructor proposition; bid to include proposition of destruction alone and collection and delivery at plant separately; also to include separately taking and treatment of sanitary sewage from sewer outlets; bidders to own and operate proposition and to own and control by-product; recently noted. (See "Machinery Wanted.")

Okla., Pocomasset-Grain Elevator.—Farmers' Elevator Co., W. W. Clark, secretary-treasurer, purchased elevator from Yukon Milling Co. at cost of \$5000; no further equipment needed at present. (Recently noted incorporated with \$6000 capital stock.)

S. C., Charleston-Machinery, etc.—Cameron & Barkley company will increase capital stock to \$250,000 of common stock and \$150,000 of preferred stock; J. P. Thomas, secretary.

S. C., Woodruff-Laundry.—A. E. Cohn is promoting establishment of laundry.

Tenn., Memphis-Printing.—Frey Printing Co., capital stock \$3000, incorporated by A. R. Frey, Booker Wilkinson, W. L. Harris and others.

Tenn., Nashville—Publishing.—Baptist Sunday-school Board, J. M. Frost, general secretary, awarded contract to Foster-Creighton-Gould Company of Nashville for excavating for publishing-house, and to Sneed Architectural Iron Works of Louisville, Ky., for steel framework; building will be four stories; 54x100 feet, extending from street to street, with alley and side stone and brick, with concrete construction; freight and passenger elevators; no printing machinery; estimated cost \$155,000; plans by Hart & Gardner of Nashville. (Recently mentioned.)

Tex., Bogata-Hardware.—Bogata Hardware Co. organized with E. G. Hutchins, president; T. A. Deberry, vice-president; W. H. Allen, secretary-treasurer; will conduct general hardware business. (Recently noted incorporated with \$12,000 capital stock.)

Tex., Donna-Publishing.—Donna Publishing Co., capital stock \$3000, incorporated; R. P. Boeye, president; G. B. Merriwether, vice-president; A. J. Whiteside, treasurer; L. J. Hagstead, secretary.

Tex., El Paso-Building Materials.—Home Lumber Co. (recently noted incorporated under "Lumber Manufacturing Plants" with \$5000 capital stock by E. C. Perry and others) will deal in building materials. (See "Machinery Wanted.")

Tex., Galveston-Laundry.—Model Laundry and Dye Works, W. A. Johnson, manager, has closed contracts for laundry machinery; building will be 55x120 feet; fireproof construction; plans by Green & Finger, City National Bank Bldg., Galveston. (Recently noted to receive building bids until November 22.)

Va., Norfolk-Fisheries.—Virginia Fisheries, capital stock \$100,000, chartered; A. Brooke Taylor, president; Fergus Reid, vice-president, both of Norfolk; John A. Palmer, Jr., secretary-treasurer, Reedville, Va.

W. Va., Kenova-Creosoting.—Preserved Timbers Co. will build plant; steel and concrete construction.

### MISCELLANEOUS PLANTS

Ala., Bessemer—Bessemer Gas Co. will improve and extend gas plant.

Ala., Mobile-Ice Cream.—M. H. B. Field contemplates enlarging plant.

Ark., Helena-Bottling.—Coca-Cola Bottling Works, capital stock \$5000, incorporated.

Fla., Fort Meads-Syrup.—Kline O. Varn, proprietor of Varnell Farm, will install power cane mill and steam cooking plant for manufacture of syrup; work begun.

Fla., Jacksonville-Chemicals.—Interstate Chemical Co., capital stock \$100,000, incorporated; P. D. Christian, president-treasurer; L. A. Dean, vice-president; Irvine Christian, secretary. J. S. Bass, president Interstate Chemical Co., Rome, Ga., states no buildings will be erected at Jacksonville at present time; company to operate there as branch of Rome company.

Fla., New Smyrna-Gas.—New Smyrna Public Service Corporation, capital stock \$50,000, incorporated to establish gas plant; F. M. Conrad, president; T. E. Fitzgerald, secretary-treasurer.

Ga., Atlanta-Industrial Building.—Greenfield Estate will erect seven-story building to cost about \$70,000; ground floor for stores and upper floors for manufacturing lofts.

Ga., Atlanta-Bakery.—George Mau Hanne

mann Company, capital stock \$30,000, incorporated by George Mau, Julius Hannemann and F. E. Radensleben to manufacture bread, cakes, ice-cream, etc. (George Boynton, Forsythe Bldg., recently reported as having awarded contract for fireproof building costing \$12,000, to be occupied by George Mau-Hannemann Company; contractor and architect, Griffin Construction Co., Candler Bldg., Atlanta.)

Ga., Atlanta-Automobile Tires, etc.—Interstate Automobile Tire & Rubber Co., leased 33 acres and four buildings; will manufacture rubber tires and automobile accessories; has \$50,000 worth of machinery.

Ga., Camilla-Bottling.—Consolidated Bludwine Bottling Co., capital stock \$30,000, incorporated; will continue Bludwine Bottling Co. of Camilla and Thomasville, Ga.; principal stockholders of Consolidated company

Ga., Macon-Hay Presses, etc.—Williams are present owners of Bludwine company.

Manufacturing Co., Box 23, recently noted (under "Woodworking Plants") as to build plant, advises has purchased site for larger and better plant, but has not yet decided on plans, size of plant or time of erection; manufacturers hay presses, lawn swings and log cars.

Ga., Savannah-Mattresses.—Georgia Mattress Co., Athens, Ga., plans to establish mattress factory.

Ga., Valdosta—Paints, Varnishes, etc.—American Chemical Co., Dr. A. O. Albright, president, Toledo, O., purchased seven acres and has option on six acres additional on which to build plant for manufacturing paints, varnishes and floor stains from products of pine logs and stumps; will make 20 products from yellow pine; employ capital of \$300,000; understood construction will begin within six weeks; main office at Toledo.

Ky., Louisville-Rugs, etc.—Fishback Cold Blast Carpet Beating, Renovating & Rug Manufacturing Co. changed name to Fishback Carpet Co. and increased capital stock from \$300 to \$20,000.

Ky., Pineville.—Pineville Manufacturing Co., capital stock \$10,000, incorporated by William E. Smith, W. L. Moss and Henry Coles.

La., New Orleans-Clothing.—Frank P. Graveley of New Orleans is preparing plans for 15-story fireproof loft building to be occupied by manufacturers of wearing apparel.

La., New Orleans-Clothing.—Son Custom Apparel Co. will install plant to manufacture wash suits; equipment will be installed on third floor of building on Carondelet St.

Md., Baltimore-Lifesaving Mattresses.—Universal Safety Mattress Co., capital stock \$10,000, incorporated by S. Preston Edmonds, Merchants National Bank Bldg.; Geo. W. Kirwan and Lester E. Edmonds. (See "Machinery Wanted.")

Md., Baltimore—Umbrellas.—Baltimore Umbrella Manufacturing Co., 112 W. Pratt St., leased 20x100-foot five-story warehouse at 20 S. Howard St. and will equip for manufacturing umbrellas.

Miss., Canton-Drugs.—Johnson Drug Co., capital stock \$10,000, incorporated by B. L. Johnson, J. D. Divine and R. W. Kiser.

Miss., Gulfport—Chemicals.—Gulfport Chemical Co., capital stock \$10,000, incorporated by J. Z. Jones and Wallace R. Smith.

Mo., Kansas City—National Gas Generator Co., capital stock \$50,000, incorporated by Lewis Alversen and Charles and C. E. Andrews.

Mo., St. Louis-Boxes, etc.—Sano Manufacturing Co., capital stock \$13,000, incorporated by Adolph H. Schmiedtje, Alfred T. Anderson and Henry W. Kroeger to manufacture boxes, cases and receptacles of wood, metal, paper, etc., for bottles, merchandise, etc.

Mo., St. Louis-Furniture.—Conrades Manufacturing Co., J. H. Conrades, Jr., president, succeeds Conrades Chair Co., and will continue business. (Recently noted incorporated with \$100,000 capital stock.)

Mo., St. Louis-Electrical Supplies.—Robinson Electric Co. incorporated by E. B. Robinson, R. H. Robinson and M. P. Ellis; capital stock \$2000.

N. C., Asheville—Scales.—Independent Scale Co., capital stock \$65,000, incorporated to manufacture automatic computing scales; daily capacity, 10 to 20 scales; James P. Sawyer, president; Harry W. Plummer, vice-president; Lawrence H. Jones, secretary-treasurer.

N. C., Jacksonville-Naval Stores.—Lacka-



wanna Naval Stores Co., capital stock \$100,000, incorporated by Frank Thompson and Charles E. Wam of Jacksonville, C. W. Bittlinger of Newbern, N. C.; Herbert McClammy of Wilmington, N. C., and others.

N. C., Lenoir—Mirrors.—Lexington Mirror Co. awarded contract to M. C. Triplett to build mirror factory; 48x150 feet; ordinary construction; cost \$5000; cost of machinery \$3000. (Recently mentioned.)

Okl., Oklahoma City—Glass Jars.—Ball Bros. Glass Manufacturing Co., Muncie, Ind., writes to Manufacturers Record: "We have not yet settled definitely on Sand Springs, Oklahoma City or any other point for our proposed new plant, but are still looking the territory over." (Previously noted under "Oklahoma City," "Sand Springs" and "Tulsa.")

S. C., Charleston.—Hornik-Well Company, capital stock \$25,000, incorporated by M. Hornik of Charleston and Julius Well of Columbia, S. C.

Tenn., Memphis—Reversible Springs.—Sanitary Reversible Springs Co., incorporated with \$25,000 capital stock by E. P. Anderson, E. J. Benedict, A. W. Fisher, G. P. Kinkle, A. M. King and D. B. Sweeney.

Tenn., Va., Bristol—Overalls.—King-Lockwood Overall Co., capital stock \$20,000, incorporated; L. C. King, president; G. H. Turk, vice-president; E. A. Lockwood, secretary-treasurer.

Tex., Corpus Christi—Gas.—City votes December 20 on granting gas franchise to Charles C. Bruce. Address The Mayor.

Tex., Houston—Bottling.—Ala-Cola Co., capital stock \$60,000, incorporated by J. N. Kinkaid, F. H. Scott, O. O. Ballard and J. P. Devine; purchased equipment of Houston Bottling Works.

Tex., Waco—Monuments.—Central Texas Monument Co., capital stock \$20,000, incorporated by John Elbert Stack, O. J. Miller and S. L. Benham.

Va., Tenn., Bristol—Polish.—Volunteer State Mineral Co., organized with \$50,000 capital stock; will erect plant to manufacture polish from yellow tripoli; S. L. Hudson, Smyrna, Tenn., president; Everett B. Tucker, vice-president; E. C. Holloway, secretary-treasurer; Dr. I. Steinberg, Nashville, Tenn., manager; for a few days address Dr. Steinberg, care Board of Trade, Bristol. (See "Machinery Wanted.")

Va., Norfolk—Jacks.—Duplex Multiple Jack Co., capital stock \$25,000, incorporated; W. J. Fuller, president; J. W. Tierney, vice-president, both of Norfolk; J. H. Totten, secretary-treasurer, Portsmouth, Va.

Va., Norfolk—Chemicals.—Interstate Chemical Co., capital stock \$100,000, incorporated; George Pilcher, representative.

Va., Norfolk—Brewery.—Chris Heurich Brewing Co. will make improvements to plant costing about \$10,000.

W. Va., Wheeling—Glass.—North Wheeling Glass Co., F. J. Park, president, increased capital stock from \$67,000 to \$300,000.

## MOTORS AND GARAGES

Ky., Lexington—Garage.—C. M. Marshall & Co. have plans by F. J. Manley, 309 Lexington City National Bank, Lexington, for commercial garage; 70x188 feet; brick; mill construction; install elevator, 18x18 feet, to run one story; construction by owner.

Md., Baltimore—Garage.—H. H. McComas, trustee, will build commercial garage at rear of 1018 Morton St.; brick; 28x47 feet; two stories; rear portion to be one story; H. H. Brown, 109-111 Clay St., Baltimore, is architect and builder.

Mo., St. Louis—Garage.—George D. Barnard awarded contract to Remmers Construction Co. to erect garage; 20x50 feet; stone and brick. (Recently noted to cost \$5000.)

Tex., Houston—Automobiles.—Cartecar Houston Company, capital stock \$30,000, incorporated by R. H. Busway, E. Emmert and C. D. Ferguson.

W. Va., Morgantown—Automobiles.—Colonial Motor Car Co., capital stock \$10,000, incorporated by A. A. Exley, W. E. Graham, A. D. Wolfe and others.

## RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ky., Louisville.—Louisville Railway Co. awarded contract to Grainger & Co. of Louisville for steel work involving about 800 tons structural steel on repair shops at 29th and Garland Ave.; structures will include machine shop, 25x230 feet; carpenter shop, 18x206 feet, and paint shop, 15x132 feet; all one story, with "saw-tooth" type of roof and steel columns, enclosed in brick; estimated

cost, \$150,000; plans by D. X. Murphy & Bro. of Louisville; L. W. Hancock Company of Louisville, contractor for foundation work. (Recently mentioned.)

Tex., Brownwood.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., awarded contract to J. A. Ware Construction Co. of St. Louis, Mo., to construct division terminals costing \$520,000. (Construction details recently stated.)

Tex., Waco.—St. Louis Southwestern Railway, W. T. Eaton, chief engineer, Tyler, Tex., will, it is reported, build machine shops.

## ROAD AND STREET WORK

Ala., Birmingham.—City awarded contract to Cressed Wood Block Paving Co. of New Orleans, La., to pave First Ave. from 18th to 21st St. and 20th St. from Railroad to Fourth Ave. with cressed wood blocks. (Contracts recently reported awarded to McCartin Paving & Construction Co. of Birmingham, and to Southern Asphalt & Construction Co. of Birmingham have been rescinded.)

Ala., Birmingham.—City awarded contract to Southern Bitulithic Co. of Nashville, Tenn., at \$22,000 to pave 24th St. from First to Eighth Ave. north, and to Southern Asphalt & Construction Co. of Birmingham to pave Maiden La.

Fla., Bartow.—City, R. C. Hatton, Mayor, has \$75,000 available for recently-noted paving; asphalt macadam; 50,000 square yards; probably open bids in February; Benjamin Thompson, engineer in charge.

Fla., DeFuniak Springs.—Wetumpka Construction Co. of Wetumpka, Ala., is lowest bidder for construction of 70 miles of sand-clay roads in Walton county; Charles H. Gordon, County Clerk.

Fla., Green Cove Springs.—Town voted \$20,000 bond issue to pave main street from dock to depot, about 3000 feet, estimated to cost \$13,000; improve water and light plant costing \$5000, and to lay main sewer in northern section of town. Address Town Clerk. (Recently mentioned.)

Fla., Tampa.—City will pave with brick Eagle St. from Plant Ave. to approach to temporary bridge and Palm Ave. from Florida Ave. to Garcia Ave. bridge; D. B. McKay, Mayor.

Ky., Pineville.—Bell county votes March 4 on \$320,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Md., Baltimore.—Board of Awards receives bids until December 4 for paving streets adjacent to timber and concrete pier to be constructed southward from Thames St. between Broadway and Ann St.; O. F. Lackey, harbor engineer. (See "Miscellaneous Construction.")

Md., Cumberland.—City will grade and curb 750 feet of Williams St. Address The Mayor.

Miss., Holly Springs.—City will issue \$12,500 of bonds to pave street around public square and Church St. Address The Mayor.

Mo., Cartersville.—City awarded contract to Maret & Anthony to lay concrete curbs and gutter on Main St. from Christiansa to Carter St.

Mo., Lamar.—Lamar township of Barton county contemplates issuing \$20,000 of bonds for road construction. Address County Commissioners.

N. C., Newton.—City will construct a few hundred yards five-foot cement sidewalk; no bids; Allen J. Barwick, Mayor.

Tenn., Bristol.—City will macadamize 14th St. from State to Windsor Ave.; S. G. Keller, Jr., chairman street committee.

Tenn., Bristol.—City and Sullivan county will arrange for macadamizing Pennsylvania Ave.; \$33,000 will soon be available, which is city's share of bond issues previously reported voted by county; S. G. Keller, Jr., chairman street committee.

Tenn., Johnson City.—City will construct sewers, concrete curb and gutter and street paving with brick, asphalt, bitulithic, tarvia, asphaltic concrete, wood block, granitoid or concrete for improvement districts Nos. 17, 18, 19 and 20, according to plans and specifications in office of city engineer; work requires 2000 cubic yards excavation, 18,000 square yards street paving, 14,540 linear feet curb and gutter, 4800 linear feet six-inch sewer connections, 14 manholes and 4200 feet six-inch vitrified sewer; bids received until December 19; P. F. McDonald, City Commissioner; William R. Ponder, Recorder. (See "Machinery Wanted.")

Tenn., St. Elmo.—Town will construct road from Tennessee Ave. to sewage-disposal plant; Cushman Fairleigh Engineering Co.

724 James Bldg., Chattanooga, Tenn., receives bids until November 27. (See "Machinery Wanted.")

Tex., Angleton.—Brazoria county voted \$150,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Tex., Bonham.—City will pave N. Center St. Address The Mayor.

Tex., Conroe.—Conroe Precinct No. 7 and portions of Justice Precincts Nos. 4 and 6 of Montgomery county will vote December 23 on \$250,000 bond issue for road construction. Address County Commissioners.

Tex., Dallas.—City will pave Carroll Ave. from Ross to Swiss Ave. and Germania St. from Swiss to Ross Ave.; paving material to be cressed pine blocks, bitulithic, vitrified brick blocks, Bernudez asphalt concrete, concrete curbs, concrete gutters or combination concrete curb and gutter; J. B. Winslett, City Secretary, receives bids until December 2. (See "Machinery Wanted.")

Tex., Galveston.—City Commissioners authorized V. E. Austin, Commissioner, to advertise for bids for paving new streets to be created between Aves. A and B, Aves. C and D, and 25th and 28th Sts.; alternate proposition of vitrified brick on concrete base and of wooden block pavement. A. T. Dickey, City Engineer, estimates cost of former at \$26,781.60, and of latter at \$29,301.60; estimates include drainage, concrete curbs, bulkheads and cement sidewalks.

Tex., Groveton.—Trinity county votes December 19 on \$20,000 bond issue to construct roads in Precinct No. 1. Address County Commissioners.

Tex., Palacios.—District No. 1 of Matagorda county voted \$100,000 bond issue for road construction. Address County Commissioners, Bay City, Tex.

Va., Purcellville.—City voted \$5000 bond issue for street lighting and improvement. Address The Mayor.

W. Va., Edgewood, P. O. at Wheeling.—City will construct about 1/2 mile stone or concrete curbing and about 20,000 square yards paving of brick, block, bitulithic, Tarvia or Warrenton paving or oil-bound macadam; bids received until December 2; bond issue recently reported voted; Orion Koller, civil engineer, Holly Bldg., Wheeling; L. B. Kietzly, town recorder. (See "Machinery Wanted.")

## SEWER CONSTRUCTION

Fla., Green Cove Springs.—Town voted bond issue to construct main sewer in northern section of town. Address Town Clerk. (Recently mentioned.)

Fla., Pensacola.—City will construct sanitary sewer on Belmont St. between Alcaniz and Davis Sts., on Brainard St. between Palafox and Guinearde Sts. and on Garden St. between Manassa and Alcaniz Sts.; 1000 linear feet eight-inch terra-cotta sewer, three brick manholes and two lamp holes; bids received until December 16; L. G. Aymard, clerk Board of Public Works. (See "Machinery Wanted.")

Ga., Lawrenceville.—City awarded contract to J. B. McCrary Company, Atlanta, Ga., at \$11,500 to construct sewer system. (Bond issue of \$15,000 recently reported voted.)

Ky., Danville.—City voted bond issue to construct sewer system estimated to cost \$25,000; J. M. Wallace, Mayor. (Previously noted.)

Ky., Lexington.—City voted \$200,000 bond issue to construct main sanitary sewer, purification plant and storm-water sewer system; J. E. Cassidy, Mayor. (Recently mentioned.)

Mo., Joplin.—City awarded contract to E. O. Moats of Joplin at \$391 to construct sewers; Charles A. Robinson, City Clerk. (Recently mentioned.)

N. C., Wilmington.—City Council instructed F. F. Pillel, City Engineer, to invite bids for extension of sewer system lately purchased from Wilmington Sewerage Co. for \$130,000; plans and specifications prepared by City Engineer call for extension in northern, eastern and southern sections of city; estimated cost \$100,000; bids to be opened within 30 days. (Recently mentioned.)

S. C., Columbia.—City School Commissioners awarded contract to W. B. Guimarin & Co. of Columbia at \$3124 to install sewer connections at Howard (negro) School; Wilson & Sompayrac of Columbia prepared plans.

Tenn., Paris.—City will construct sanitary sewerage system costing \$25,000 to \$40,000. C. H. Jinks, civil engineer, will make surveys.

Tex., Dallas.—City will construct 15-inch vitrified pipe storm sewer on Beckley Ave. from 12th to Jefferson Sts.; J. B. Winslett,

City Secretary, receives bids until November 27. (See "Machinery Wanted.")

Tex., Houston.—City awarded contract to Horton & Horton of Houston at \$47,246.94 to construct storm sewers on Calhoun Ave.; about 230 linear feet 36-inch sewer pipe, 20 catch-basins, 728 linear feet catch-basin connections, 7 manholes, 46 catch-basins and 1144 linear feet catch-basin connections; also awarded contract to Freund & Quay of Galveston, Tex., at \$93,414.55 to construct sanitary sewer in Second Ward; 23,050 linear feet 8-inch pipe, 910 linear feet 10-inch pipe, 1200 linear feet 12-inch pipe, 5840 linear feet 30-inch pipe, etc.; H. B. Rice, Mayor.

Tex., San Benito.—City awarded contract to Scott Brown, San Benito, at \$26,636.16 to construct several thousand linear feet 8-inch, 10-inch, 12-inch, 15-inch and 18-inch vitrified brick sanitary sewers, manholes, etc.; Bruce Gentry, City Engineer. (Recently noted.)

Tex., Yoakum.—City awarded contract to A. J. Matthews of Yoakum for excavations and construction of septic tanks for sewer system; E. Leahy, City Engineer, prepared plans; \$32,000 bond issue voted to construct sewer system. (Previously mentioned.)

Va., Apalachia.—City is having plans prepared by Malcolm Smith, consulting engineer, Big Stone Gap, Va., for sewer system; E. A. Collins, City Recorder. (Recently mentioned.)

Va., Boykins.—Dr. J. Moncreur Bland, chairman of committee, is asking correspondence relative to recently-noted installation. (See "Water-works" and "Machinery Wanted.")

Va., Norfolk.—City will construct reinforced concrete drain from present end of Cumberland St. drain for about 800 feet; bids received until November 30; W. T. Brooke, City Engineer. (See "Machinery Wanted.")

## TELEPHONE SYSTEMS

Ark., Arkadelphia.—Southwestern Telephone & Telegraph Co., J. R. Grogan, local manager, will rebuild telephone plant.

Ky., Glasgow.—Glasgow Home Telephone & Telegraph Co., capital stock \$25,000, incorporated by T. P. Dickinson, W. B. Smith and H. P. Myers.

Ky., Louisville.—Fayette Home Telephone Co., Church and Upper Sts., Lexington, Ky., awarded contract to construct extension to switchboard; M. S. Taylor, engineer in charge. (Recently noted as to increase capital stock to \$700,000 or \$800,000.)

Md., Myersville.—Chesapeake & Potomac Telephone Co., main office 5 Light St., Baltimore, will install telephone exchange and construct telephone lines.

Md., Riverton.—Chesapeake & Potomac Telephone Co., 5 Light St., Baltimore, Md., will acquire Riverton & Delmar Telephone Co.

N. C., Durham.—W. W. Shaw, secretary-treasurer Interstate Telephone & Telegraph Co., states company will not construct telephone system from Durham to Henderson, N. C. (This company and local station Southern Bell Telephone & Telegraph Co. recently noted to construct system.)

N. C., Thomasville.—Hamby's Creek Telephone Co., capital stock \$10,000, incorporated by J. D. Carter, A. L. Bowers and Luther Grimes.

Okl., Willard.—Pioneer Telephone Co., capital stock \$5000, incorporated by O. Nossaman and George W. Thompson of Willard and Guy D. Buley of Yelton, Okla.

Okl., Woodward.—Willard, Rose Valley & Greenvale Telephone Co., R. F. D. No. 2, incorporated by G. L. Morrow, H. E. Anderson and John Harris.

Tenn., Columbia.—Cumberland Telephone & Telegraph Co., Atlanta, Ga., contemplates installing drop system; also erecting or remodeling exchange.

Tenn., Knoxville.—Cumberland Telephone & Telegraph Co., Atlanta, Ga., awarded contract to G. M. Gest Company of New York and Cincinnati, O., to construct underground conduit system; distance, nine miles; estimated cost \$100,000. (Previously mentioned.)

Tex., Manvel.—Suburban Gardens Telephone Co., T. E. Scott, manager, will construct 75 miles of telephone line; bids opened about June 1, 1913. (Recently noted incorporated with \$10,000 capital stock.)

## TEXTILE MILLS

Ga., Macon.—Yarns, etc.—Manchester Manufacturing Co. will add new machinery, and has awarded contract.

N. C., Ching Grove—Sheeting, etc.—Patterson Manufacturing Co. will install automatic looms to replace old type looms; ordered 175 looms.

N. C., Hendersonville.—Hosley.—Freize Hosley Mills will double capacity; present equipment 40 knitting machines, etc.

N. C., Newton.—Hosley.—Ridgeview Hosley Mills Co., authorized capital \$100,000 and \$21,000 paid in, incorporated by J. Albert Gaither, George A. Warlick and associates of Newton and P. E. Isenhower & Son of Conover, N. C.; secured brick construction mill building and will install hosiery knitting equipment.

S. C., Iva.—Cotton Cloth.—Jackson Mills will, it is reported, add new spinning machinery; is enlarging cotton warehouse and installing suction conveyor from warehouse to picker-room.

S. C., Columbia.—Yarns, etc.—Glencoe Cotton Mills will add 1000 spindles; contract awarded.

Tenn., Dayton.—Hosley.—E. Waterhouse, G. W. Spivey and J. F. Crawford are planning organization of \$50,000 company to establish hosiery mill.

Tenn., Knoxville.—Cotton Duck, etc.—Brookside Mills will expend about \$100,000 for building additions lately reported; F. P. Sheldon & Son, architects, Providence, R. I., state enlargement consists of addition to saw-tooth weave shed and adding two stories to spinning mill; weave shed, 247x152 feet; spinning mill addition, two stories, 257x130 feet; weave shed will have saw-tooth roof with usual basement for shafting; floor beams and rafters of weave shed and mill of steel; contractor, Sullivan & McNally Co., Paterson, N. J.; Brookside company has not definitely decided number of spindles, looms, etc., to be added.

Tenn., Maryville.—Hosley.—Maryville Hosley Mills will, it is reported, considerably increase capacity.

### WATER-POWER DEVELOPMENTS

Ark., Benton.—C. C. Kavanaugh, Little Rock, Ark., wires Manufacturers Record that he and associates of Little Rock Railway & Electric Co. have obtained control of Garland Power & Development Co. and confirms following statement: Garland corporation controls water-powers on Ouachita River; will construct principal dam in Garland county 45 miles from Little Rock, estimated to generate electricity for central and southwestern central section of State; has two other dam sites and Mr. Kavanaugh has option on controlling interests in Polk water-power sites above navigation on Ouachita River; engineering completed and will soon begin construction; from first dam distribute electricity within 100-mile radius of Little Rock; contemplates furnishing electricity to rice growers in Louisa, Prairie and Arkansas counties, and to bauxite developing company in Saline county; develop 28,000 horse-power at cost of about \$3,000,000 for hydro-electric plant and transmission system; new officers of Garland corporation: President, C. C. Kavanaugh; vice-president and treasurer, W. M. Kavanaugh; secretary, D. H. Cantrell; all of Little Rock, Ark. (Garland company previously reported organized, etc., and planning Ouachita River developments.)

W. Va., Charleston.—West Virginia Water & Electric Co. incorporated with \$1,000,000 capital stock. For information address Henry & Robinson, 32 N. Clark St., Chicago, Ill.

### WATER-WORKS

Ark., McGehee.—City will construct water-works and electric-light plant; bids received until December 16 by Scott McGehee, chairman of commissioners; plans and specifications on file at office of G. B. Ewin, secretary of commissioners, and of Missouri Valley Engineering Co., Mitchell, S. D. (See "Machinery Wanted.")

Fla., Green Cove Springs.—Town voted \$5000 bond issue to improve water and light plants; recently mentioned. Address Town Clerk. (See "Road and Street Work.")

Ga., Atlanta.—Peachtree Water Works Co., capital stock \$10,000, incorporated by W. S. Witham, C. E. Caverly, J. C. Wayt, Tom Pitts and J. L. Riley; will furnish water to residents along three miles of Peachtree Rd.

La., Kaplan.—Town Council appointed committee to secure estimates on construction of water-works; J. F. Ritter of Abbeville has contract for well and material.

La., Mansfield.—City votes November 27 on \$45,000 bond issue to construct water-works; J. W. Parsons, Mayor. (Recently mentioned.)

Md., Baltimore.—Board of Awards awarded contract to C. W. Lane & Co. of Atlanta, Ga., at \$171,748.90 to construct filtered-water reservoir at Lake Montebello. (Call for bids lately noted.)

Miss., Biloxi.—Water-works Committee of

City Council adopted plans of Superintendent E. L. Castenera for installation of electrical pumps in new pumping station; plans call for three electrical pumps each with capacity of 750 gallons per minute; this is included in improvements provided for under \$70,000 bond issue. (Previously mentioned.)

Tex., Waco.—N. Werenskiold, Dallas, Tex., engineer for water filtration plant (contract recently noted awarded to Pittsburgh Filter Manufacturing Co., Pittsburgh, Pa.) states that contracts for pumping station, boiler plant and some excavation are yet to be awarded.

Va., Boykins.—Dr. J. Moncure Bland, chairman of committee on recently-noted sewerage and water-works construction, is open to propositions relative to installation. (See "Machinery Wanted.")

### WOODWORKING PLANTS

Ala., Jasper.—Staves.—J. C. Turbeville & Sons, Martin, Tenn., will build stave plant; erect buildings; has six-acre site.

Ala., Opelika.—Sash and Doors.—W. A. Andrews is rebuilding sash and door plant. (Plant recently reported burned was not that of W. T. Andrews, as was stated.)

Ark., Newport.—Veneer.—American Veneer Co., capital stock \$50,000, incorporated; purchased plant of American Panel & Lumber Co. (recently reported), and will improve and operate, manufacturing veneer from elm, walnut and gum and baskets from sycamore; contemplates manufacturing pulp in future; Oscar E. Jacobs, president-treasurer, Kalamazoo, Mich.; William C. Grace, vice-president; George P. Benton, secretary.

Md., Baltimore.—Boxes.—Rittler Box Co., 613 S. Caroline St., awarded contract to Henry S. Rippel, 1-7 Clay St., Baltimore, to erect addition to plant; three stories; 60x100 feet; slag roof; plans by Nicholas Grimm, Bond Bldg., Washington, D. C. (Recently mentioned.)

N. C., Wilmington.—Handles and Spokes.—United Handle Mills, 59-61 Pearl St., New York, purchased site on Point Peter, and will establish spoke and handle factory.

Tenn., Dayton.—Crates.—John Denton is interested in establishment of crate factory.

### BURNED

Ala., Birmingham.—James Elkes' residence, near Princeville.

Ala., Birmingham.—F. F. Norton's residence at 1630 S. Eleventh Ave.

Ala., Castlebury.—Skinner Hardware Co.'s building.

Ala., Columbia.—Columbia Oil Mills; estimated loss \$50,000.

Ala., Greenville.—Mrs. E. L. Cook's residence on Commerce St.; loss \$3500.

Ala., Valley Head.—School building. Address School Trustees.

Ark., Galloway.—Mark Valentine's residence; loss \$4000.

Ark., Mulberry.—First Hotel, owned by W. E. Sawyer.

Fla., Auburndale.—W. G. Jones' store and stable; loss \$15,000.

Fla., Molino.—Molino Mercantile Co.'s two stores; loss \$25,000.

Fla., St. Petersburg.—J. S. Davis' residence; loss \$3500.

Ga., Atlanta.—Eugene R. Black's building at Ivy St. and Auburn Ave., occupied by Firestone Tire & Rubber Co. and others.

Ga., Gainesville.—W. A. Turner's store on Bradford St.; Dr. J. B. George's drug store.

Ga., Gainesville.—Mrs. E. E. Dixon's store; building owned by E. P. and M. M. Ham.

Ga., Dudley.—J. A. Hogan's cotton gin.

Ga., Holland.—Christian Church and Orphans' Home; loss \$5000. Address The Pastor, Christian Church.

Ky., Marion.—A. W. Thomas & Co.'s livery barn and C. R. Newcom's produce house, both buildings owned by J. P. Pierce, loss \$5000; residences of J. B. Grissom and Seldon Hughes on N. Main St.

Ky., Pineville.—Mrs. Polly Warren's residence.

Ky., Pineville.—J. H. Hendren's residence, occupied by George W. Brown; loss \$3000.

Ga., Villa Rica.—J. T. Chappell's barn.

Ga., Washington.—St. Joseph's Academy; loss \$75,000.

Ky., Crestwood.—J. W. Swinney's tobacco barn on Pallardsville Pike; loss \$4000.

Ky., Louisville.—Residences of Rev. Chas. B. Althoff, pastor of Hazelwood Baptist Church at Hazelwood; loss \$5000; E. V. Farmer's residence, loss \$3500.

La., Klotzville.—Klotz Planting & Manufacturing Co.'s plantation store; residence owned by estate of A. Madeo Braud, and several small buildings; loss \$30,000.

La., Natchitoches.—Judge S. Henry's residence.

La., Olla.—Building owned by George W. McCormick of Monroe, La.; E. S. Randall's store and blacksmith shop; Zaegler Bros.' store; R. E. Blake's store; total loss, \$16,000.

Mo., Jonesburg.—Claude Padgett's store building; building occupied by Jonesburg Journal; loss \$20,000.

N. C., Asheville.—Dr. G. W. Purefoy's barn.

N. C., Goldston.—Goldston Milling Co.'s roller mills; estimated loss \$10,000.

N. C., Graham.—Methodist Episcopal Church; loss \$3500. Address The Pastor, Methodist Episcopal Church.

N. C., Hillsboro.—Bellevue Cotton Mills damaged by fire; loss about \$8000.

N. C., Edgemont.—Kern's Hall, occupied by Norwood Bros., W. H. Ligon and others; loss \$3000 to \$4000.

N. C., Salisbury.—Shady Grove Baptist Church, Rev. J. W. Hairston, pastor; loss about \$3000.

N. C., Stantonburg.—J. L. Yoberton's two stores; loss \$4000.

N. C., Warrenton.—W. E. Hundley's store; S. W. Rose's store.

Okla., Durant.—A. S. Bootis' residence at 13th and Beach Sts.

S. C., Anderson.—Mrs. J. L. Glenn's barn.

S. C., Gaffney.—W. S. Sparks' barn.

S. C., Lykesland.—William Rawls' cotton gin; loss \$2000.

Tenn., Clarksville.—Ewing Roberts' two residences; J. D. Myers' four dwellings; Andres Oakley's store building; H. C. Merritt's tobacco barn.

Tenn., Crossville.—Volner Hamby's hotel.

Tenn., Fayetteville.—Ben Whitaker's barn on Boon's Hill and Petersburg Pike; loss \$2500.

Tenn., Nashville.—Walden University chapel building in South Nashville; loss \$3000.

Tenn., Nashville.—Dr. J. R. Thompson's residence at 812 Seventeenth Ave.; loss \$3000.

Tenn., Pulaski.—Short Bros. & Stone's store, building owned by Ed R. Short, loss \$35,000; Sol Cohn's store, building owned by

B. S. Cheek, loss \$20,000; Patterson & Sons' warehouse, loss \$12,000.

Tenn., Reynoldsburg.—Robert Napier's residence; loss several thousand dollars.

Tex., Barstow.—Citizens' State Bank building; loss \$25,000.

Tex., Cameron.—J. M. Cone's residence; loss \$9000.

Tex., Crandall.—James K. Brooks' barn; loss \$5000.

Tex., Ennis.—J. L. Champion's residence; loss \$6000.

Tex., Gonzales.—John Murray's residence; loss \$4000.

Tex., Huntsville.—Farmers' Union Warehouse; loss \$20,000.

Tex., Hutchins.—Hutchins Gin & Cotton Co.'s cottonseed-house, engine-rooms, gin-house and scalehouse; estimated loss \$10,000.

Tex., Palacios.—John T. Price Lumber Co.'s yards, loss \$15,000; R. A. Cates' residence, loss \$4000; W. C. Williams' residence, loss \$2000.

Tex., Taylor.—Nolan Maddox' barn; loss \$3000.

Tex., Waco.—Dixie Theater; loss on building, owned by Putnam estate, \$4000.

Tex., Westminster.—Westminster Cotton Gin Co.'s plant.

Va., Norfolk.—Farmers' Manufacturing Co.'s two warehouses at Clavery and Landing Sts.; loss \$10,000; T. J. East, general Va., Richmond.—Union Envelope Co.'s factory; loss \$75,000.

Va., Warm Springs.—Bath County Court-house; loss \$22,000. Address County Commissioners.

W. Va., Ben Lomond.—C. P. Stout's barn; loss \$2000.

W. Va., Bluefield.—Bluefield Water-works & Improvement Co.'s office; residences of H. Cohen, R. M. Garrett, C. B. Wilson and Mrs. G. J. Holbrook; storage-houses of H. A. Lilly & Co. and D. E. Bodington; total loss \$25,000.

W. Va., Elkins.—Elkins Box Co.'s drykilns and contents; estimated loss \$10,000.

W. Va., Ingleside.—Residence near Ingleside owned by Tilden Holt of Princeton, W. Va.; loss \$5000.

W. Va., Warwood.—Ira Anderson's residence.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

Ga., Savannah.—A. S. Rosenhoff will erect store and apartment building. (See "Stores.")

Md., Frederick.—B. Rosenour & Sons will erect store, apartment and office building. (See "Stores.")

Mo., St. Louis.—H. A. Jareig will erect two-story tenement at 3434 Keokuk St.; cost \$5000.

Mo., St. Louis.—C. F. Levy will erect three-story apartment building at 5355 Berlin Ave.; cost \$25,000.

Mo., St. Louis.—Jennie Hughes will erect tenement-house at 5778 Berlin St.; three stories; cost \$10,000.

Mo., St. Louis.—Henry Sprecht will erect two-story tenement-house at 3629 Arkansas St.; cost \$3800.

Mo., St. Louis.—Mrs. Volkering will erect two-story tenement-house at 2004 Russell St.; cost \$4000.

Mo., St. Louis.—F. Kenzel will erect two-story flat building at 5500-02 Minnesota St.; cost \$4900.

N. C., Wilmington.—J. T. King invites bids to erect two-story apartment-house; plans and specifications by Henry E. Bonitz, 213 Princess Block, Wilmington.

N. C., Wilmington.—H. W. Konig is having plans prepared for two-story mock of apartment-houses and stores. (See "Stores.")

Tenn., Jackson.—H. C. Bondurant, Box 189, has not selected architect to prepare plans for apartment-house recently noted; seven six-room apartments; heating not decided; slate or composition roofing; bids opened about March 1. (See "Machinery Wanted.")

Tenn., Knoxville.—R. F. Graf & Sons prepared plans for apartment-house at Eleanor St. and Third Ave.

Tenn., Knoxville.—A. B. Day will erect

apartment-house at Church Ave. and Walnut St.

Tenn., Nashville.—S. Z. Levy, 403 Church St., has not determined date of opening bids to erect apartment-house; 96x104 feet; three stories and basement; ordinary construction; brick walls; wood joists; composition and gravel roof; plans by Moritz Sax, 1011 Fourth National Bank Bldg., Cincinnati, O. (Recently noted to cost \$30,000.)

Tex., El Paso.—L. F. Clark will erect brick tenement-house at Florence and 8th Sts.; cost \$6000.

Tex., Houston.—C. E. Davis will erect apartment-house on Alabama Ave.; brick; cost \$6000.

Va., Richmond.—E. A. Catlin & Co., agents, 16 N. 8th St., will receive subscriptions up to \$180,000 of the capital stock of proposed company to erect Lee Apartments at Park Ave. and Addison St.; six stories; 40 apartments; verandas; steam heat; electric lights; gas ranges; electric elevators; brick and stone; granite base and steps; wrought-iron balconies.

Va., Richmond.—T. C. Tinsley will erect two-story brick tenement-house on Jail Al. between Broad and Marshall Sts.; cost \$3000.

#### ASSOCIATION AND FRATERNAL

Fla., Tampa.—Tampa Lodge No. 706, Benevolent Protective Order of Elks, will receive bids until January 9 to erect lodge building; plans by Holmboe & Lafferty, Empire Bldg., Clarksburg, W. Va. (Previously noted.)

La., New Orleans.—Jerusalem Temple, Ancient Arabic Nobles of the Mystic Shrine, is reported as to erect temple.

La., New Orleans.—Young Women's Christian Association, Mrs. W. W. Carre, president, plans to erect building.

Tenn., Knoxville.—Southern Railway Branch, Young Men's Christian Association,



will erect building at Depot Ave. and Broadway; three stories; ordinary construction; tar and gravel roof; 50x100 feet; 10-foot basement, equipped with bowling alleys, manual training department, steam-heating plant, 14 baths, etc.; 30 bedrooms on top floor; cost of construction, \$25,000; furnishings, \$5000; A. C. Van Campen, secretary. (Previously noted.)

Tex., Palestine.—Ivanhoe Lodge No. 15, Knights of Pythias, will receive bids until December 10 through James F. Brook, architect, Palestine, for lodge and store building; cost about \$30,000. (Previously noted.)

Tex., Waco.—Ancient Free and Accepted Masons will receive bids until December 11 to erect lodge building; three stories; brick and reinforced concrete; certified check for \$5000, payable to order of J. F. Brinkerhoff, secretary of building committee; plans, specifications and other information at office of T. Brooks Pearson, architect, 1509 Amicable Bldg., Waco, or may be had on deposit of \$25. (Recently noted.)

Va., Petersburg.—Young Men's Christian Association inaugurated campaign to raise \$75,000 to erect building; Dr. J. G. Rennie, general chairman.

### BANK AND OFFICE

Ark., Amity.—Farmers & Merchants' Bank will erect brick bank building.

Ark., Mountain View.—Farmers' Bank, H. S. Mabry, president, will erect bank building.

Fla., Jacksonville.—H. R. Finn will remodel building for stores and offices. (See "Stores.")

Fla., Sarasota.—Bank of Sarasota will erect bank building; two stories; walls to support two additional stories; cost \$20,000.

Ga., Atlanta.—Trust Company of South will expend \$25,000 for repairs and alterations to building at Peachtree and Walton Sts.; day labor; to be occupied by Travelers' Bank & Trust Co. after January 1.

Ga., Savannah.—Hibernia Bank is considering plans by Mowbray & Uffinger, New York, for office building on former Board of Trade building site; one story, with three-story effect; 60x90 feet; gray granite. (Previously noted.)

Md., Frederick.—R. Rosenour & Sons will erect store, office and apartment building. (See "Stores.")

Miss., Columbia.—First National Bank is having plans prepared by J. E. Greene for bank building; two stories; marble columns; stone trimmings; pressed brick walls; steam heat.

N. C., Charlotte.—Mrs. O. D. King is having plans prepared by Louis Asbury, Charlotte, for improvements to building on South Tryon St.; three stories; terra-cotta front; basement excavated under sidewalk for storing papers, books, etc.; building to be 24x55 feet; ordinary construction; steam heat; electric lighting; three-way prism sidewalks; cost \$10,000; bids opened early in spring.

N. C., Newbern.—Citizens' Savings Bank & Trust Co., T. A. Uzzell, president, will erect bank and office building on Middle St.

Tenn., Columbia.—Columbia Bank & Trust Co. will erect two-story office building at Garden and 7th Sts.

Tenn., Nashville.—Elighth Ave. Real Estate Co., incorporated by T. Garland Tinsley and others; will erect store and office building. (See "Stores.")

Tex., Corpus Christi.—E. L. Bernard will erect store and office building. (See "Stores.")

Tex., El Paso.—First National Bank will erect bank and office building, duplicate of adjoining and connected with American National Bank Building; seven stories; cost \$150,000; two structures, 112x120 feet; is having plans prepared by Trost & Trost, El Paso.

W. Va., Wheeling.—Robert McLain, 12th and Market Sts., has plans by Edward Bates Franzheim, Wheeling, for remodeling and improving McLain Block; will entirely rebuild west portion of building; will provide total of 48 offices, lobby 88 feet deep, etc.; install elevator, tile floor, brick and terra-cotta front, etc.; 68x88 feet.

W. Va., Wheeling.—F. H. Lange, Lou Guttman and others are reported to erect theater, office and store building. (See "Theaters.")

### CHURCHES

Ark., Argenta.—Dye Memorial Church, Rev. Frank P. Jernigan, pastor, will erect edifice on Maple St. between 3d and 4th Sts.; concrete foundation; pressed brick superstructure; 16 rooms; auditorium to seat about 700; cost \$15,000.

Ark., Helena.—First Christian Church, Rev. Albert A. Adams, pastor, will erect edifice.

Ark., Murfreesboro.—Methodist Church will erect edifice. Address The Pastor, Methodist Church.

Fla., Miami.—People's Congregational Church, Rev. Nell McQuarrie, pastor, plans to erect edifice.

Fla., West Palm Beach.—Methodist congregation plans to erect edifice. Address The Pastor, Methodist Church.

Md., Halethorpe.—St. Clement's Catholic Church, Rev. John L. Sullivan, pastor, Lansdowne, Md., will erect edifice.

Mo., Kansas City.—Trustees of Church of Holy Council will erect edifice at 609 Schaefer Ave.; one story; brick; cost \$25,000.

N. C., Atlantic.—Methodist Church will erect edifice; W. A. Cowell is interested.

N. C., Whitesville.—Episcopal Church will probably erect edifice. Address The Rector, Episcopal Church.

S. C., Columbia.—St. Timothy's Church plans to erect edifice at Calhoun and Lincoln Sts.; stone construction. Address The Pastor, St. Timothy's Church.

Tenn., Bristol.—Virginia Avenue Methodist Episcopal Church, Rev. J. W. Repass, pastor, will rebuild burned edifice; loss \$3000. (Recently reported burned.)

Tenn., Rutledge.—Baptist Church will erect addition to edifice; 20x40 feet; will also remodel and reroof present structure. Address The Pastor, Baptist Church.

Tex., Cuero.—Presbyterian church will erect edifice; brick; cost \$15,000. Address The Pastor, Presbyterian Church.

Va., Lexington.—Baptist congregation plans to erect edifice. Address The Pastor, Baptist Church.

W. Va., Fairmont.—Christian Church will erect edifice; 42x67 feet. Address The Pastor, Christian Church.

W. Va., Wheeling.—Second United Presbyterian Church, Rev. J. H. Littell, pastor, is having plans prepared for edifice.

### CITY AND COUNTY

Ga., Augusta.—Hospital.—Proposals addressed to Dr. J. M. Caldwell, chairman, received until 4 P. M. December 9 for furnishing labor and material necessary to erect administration building; plans and specifications prepared by G. Lloyd Preacher, architect and engineer, Augusta, Ga., from whom plans may be secured; certified check for 2 per cent. of amount of bid; Thos. Barrett, Jr., Mayor. (Recently noted as to erect hospital buildings, etc.)

La., Homer.—Fire Station.—City will erect central fire station. Address The Mayor.

La., Kentwood.—Jail.—A. B. Lee, Mayor, will receive bids until December 3 to erect reinforced concrete jail; plans and specifications from Geo. F. Fonant, engineer, Kentwood.

La., New Orleans.—Library.—City's plans for stack-room adjoining Central Library building include structure 56 feet 10 inches by 54 feet 6 inches; fireproof; steam heat; electric lighting; present elevator moved to new location; copper and composition roof; plans by Diboil, Owen & Goldstein, 704 Perlin Bldg., New Orleans. (Recently noted as to receive bids December 1.)

Tenn., Nashville.—Hospital.—City and Davidson county is considering erection of hospital for contagious diseases; cost about \$60,000. Address Mayor Howse and County Commissioners.

Tex., Center.—Clerk's Office.—Shelby County Commissioners will erect office for County Clerk and construct fence around court yard.

Tex., Dallas.—Fire Station.—City opened bids to erect Forest Ave. Fire Station; S. S. Self is lowest bidder at \$12,640; also accepted bid of Albright Electrical Co. for wiring central fire station at \$425.

Tex., Hearne.—Jail.—Robertson County Commissioners are considering erection of jail and courthouse.

Va., Christiansburg.—Jail, etc.—Montgomery County Supervisors have plans by G. R. Ragan, Salem, Va., for jail and jailer's residence; fireproof jail; electric lighting; dumbwaiter; slate roof; cost \$15,000.

Va., Richmond.—Market.—City, H. P. Rich, Building Inspector, is having plans prepared by Carneal & Johnston, 409 National Bank of Virginia Bldg., Richmond, for meat market; 50x305 feet; one story; fireproof construction; slag roof. (Recently noted to cost about \$25,000.)

Va., Richmond.—Armory.—Council committee on grounds and buildings opened bids to erect First Regiment Armory; Wise Granite Co., Richmond, is lowest bidder at \$123,000 for non-fireproof and \$140,700 for fireproof construction; this exceeds \$105,000 appropriation.

tion, and architects, Carneal & Johnston, Richmond, will revise plans with view of bringing cost within appropriation. (Recently noted.)

### COURTHOUSES

Ga., Athens.—Clarke County Commissioners, J. M. Hodgson, chairman, will let contracts February 1 to erect courthouse to cost \$160,000; A. Ten Eyck Brown, architect, 607 Forsythe Bldg., Atlanta, Ga., will soon have revised plans ready. (Recently noted to receive new bids.)

Ky., Shelbyville.—Shelby County Commissioners are having plans prepared by Joseph & Joseph, Louisville, Ky., for courthouse to be erected from proceeds of \$75,000 bond issue; also authorized architects to superintend construction.

Mo., Linneus.—Linn county will receive bids until December 5 at office of Frank Walsh, County Clerk, to erect courthouse; plans by Sanneman & Van Trump, 519 Reserve Bank Bldg., Kansas City, Mo.

Tex., Hearne.—Robertson County Commissioners are considering erection of courthouse and jail.

Va., Winchester.—Frederick County Supervisors are having plans and specifications prepared to remodel interior of courthouse.

### DWELLINGS

Ala., Easley.—F. G. Cutler will erect one-story frame building; cost \$3500.

Ala., Florence.—U. O. Redd will erect bungalow on Wood Ave.; seven rooms.

Ala., Gadsden.—Louis Hart is having plans prepared by M. D. Hite, New Orleans, La., for 30 to 50 bungalows; mill construction; electric lighting; shingle or asbestos roof; cost \$50,000 to \$75,000.

D. C., Washington.—H. G. Smithy has plans by W. R. Tallbott, 1342 New York Ave., N. W., Washington, for dwelling at 1323 Delafield Pl. N. W.; cost \$1200; construction by owner.

D. C., Washington.—L. E. Breuninger, 3208 18th St. N. W., has plans by H. L. Breuninger, 3208 18th St. N. W., Washington, for 10 dwellings at 3307 to 3325 17th St. N. W.; cost \$35,000; construction by owner.

D. C., Washington.—W. J. Wire, Potomac Heights N. W., will erect four two-story brick dwellings at 427 to 433 5th St. S. E.; cost \$8000; plans and construction by owner.

D. C., Washington.—Harry Wardman, 1342 New York Ave. N. W., has plans by F. R. White & Co., 1342 New York Ave. N. W., Washington, for 10 two-story brick dwellings at 1407-1425 Perry Pl. N. W.; cost \$30,000; construction by owner.

D. C., Washington.—H. R. Howenstein, 1314 F St. N. W., will erect two two-story brick dwellings at 406-408 N St. N. E.; cost \$6000; plans and construction by owner.

Fla., Lakeland.—H. B. Carter has plans by A. J. MacDonough, Lakeland, for addition to dwelling.

Fla., Lakeland.—G. Daniels has plans by A. J. MacDonough, Lakeland, for dwelling; two stories; 11 rooms; frame; porches on both floors; cost \$3500.

Fla., St. Petersburg.—F. R. Singlehurst will erect eight-room dwelling on Fifth Ave. between 5th and 6th Sts.

Ga., Atlanta.—Anderson Bros. Company, 415 Austell Bldg., has plans by J. L. Bowles, Atlanta, for dwelling; 10 rooms; ordinary construction; hot-air heat; electric lighting; shingle roof; cost \$4000; day labor. (Recently noted.)

Ga., Atlanta.—Phoenix Insurance Co. will erect two-story frame dwelling at 739 N. Boulevard; cost \$3500.

Ga., Atlanta.—J. N. Renfro & Co. will erect two two-story frame dwellings at 375 William St. and 739 Peachtree St.; cost \$4500 and \$5000, respectively.

Ga., Atlanta.—McKenzie Trust Co. will erect one-story frame dwelling at 23 Albemarle St. and on E. 4th St.; cost \$3000 and \$3500, respectively; day labor.

Ga., Lexington.—W. Z. Faust will erect dwelling; plans not made.

Ga., Oxford.—Mrs. Virginia W. Henderson will rebuild residence; cost \$8000 to \$10,000. (Recently reported burned.)

Ga., Savannah.—L. W. Kirkland will erect two-story frame dwelling at 903 Henry St.

Ga., Savannah.—James Dowling will erect dwelling at Anderson and Jefferson Sts.; two stories; frame; metal roof.

Ky., Louisville.—Karl Jungbluth will erect two-story brick-veneer dwelling at 528 Ormsby Ave.; cost \$5000.

Ky., Winchester.—Henry V. Thompson will erect residence.

Ky., Winchester.—J. Ed Grubbs will erect residence on Hickman St.

Ky., Paris.—T. T. Templein will erect concrete-block residence on S. Main St.

La., New Orleans.—Henry O. Hollander will erect single cottage on Fillmore Ave.; cost \$3900.

La., New Orleans.—E. J. Sack will erect residence on Broadway St.; cost \$4000.

Md., Baltimore.—A. Phillips of D. E. Foote & Co., Inc., 2009 Aliceanna St., is having plans prepared by Mottu & White, 322 N. Charles St., Baltimore, for residence on Charles-street Ave. near Merryman's La.; cost about \$60,000.

Md., Baltimore.—J. Allan Fledderman, 1709 Madison Ave., purchased 10-acre site at Villa Nova and will probably erect residence.

Md., Baltimore.—C. H. Sibley, 3628 Cedar Ave., is having plans prepared by John Freund, Jr., 210 E. Lexington St., Baltimore, for two dwellings on Cedar Ave. between 37th and Carwell Sts.; two stories; iron-spot brick; 12x42 feet; cost \$4500.

Md., Baltimore.—West Forest Park Co., Liberty Heights and Clarendon Aves., will erect cottage on Springdale Ave., West Forest Park; three stories; slate roof; hardwood floors; open fireplaces; combination lighting fixtures; steam heat; 24x36 feet; frame; cost \$4000; construction by owners.

Md., Baltimore.—L. L. Chambers, 2074 Woodberry Ave., and Mrs. K. M. Naylor, 3518 Roland Ave., will erect 11 two-story brick dwellings on west side of Hickory Ave. between 30th and 37th Sts.; 14x48 feet; tin roof; steam heat; cost \$20,000.

Md., Baltimore.—Dr. William A. Cox, 51 S. Fulton Ave., is having plans prepared by G. Spedden for cottage at Beulah Villas; two and a half stories; frame; steam heat; electric lights.

Md., Calhorne.—Theodore T. Jones will erect residence.

Md., Calhorne.—Walter Adkins will erect residence.

Md., Calhorne.—Clarence Adkins will erect residence.

Mo., Kansas City.—Cowherd Land Co. will erect two stucco dwellings at 6033 and 6041 Main Ave.; total cost \$3000.

Mo., Kansas City.—F. C. Riley will erect two dwellings at 437 and 433 W. Sixtieth Terrace; frame; cost \$3000 and \$2500.

Mo., Kansas City.—H. L. Bliss will erect stucco dwelling at 5419 Broadway; cost \$6000.

Mo., Kansas City.—Home Land & Building Co. will erect stone veneer and stucco dwellings at 301 and 303 N. Chelsea St.; cost \$2500 each.

Mo., Kansas City.—Home Investment Co. will erect stucco dwelling at 20 W. 57th St.; cost \$3500.

Mo., Kansas City.—H. Rucker will erect stucco dwelling at 28 53d St.; cost \$3500.

Mo., St. Louis.—Allison Avenue Improvement Co. will erect two-story frame dwelling; cost \$3000.

Mo., St. Louis.—Jefferson Realty & Financial Co. will erect three two-story dwellings at 4314-18 Cote Brillante; cost \$3000.

Mo., St. Louis.—J. Nicholson will erect two-story dwelling at 4968 Spalding St.; cost \$3700.

Mo., St. Louis.—Eugene L. Hartrich will erect dwelling at 5751 De Giverville Ave.; seven rooms; cost \$6500.

Mo., St. Louis.—Neal Hoffman will erect dwelling at 3841 De Tonty Ave.; two stories; cost \$3600.

Mo., St. Louis.—Henry W. Hamilton, builder, connected with office of Charles F. Vogel, will erect six bungalows in Justin Pl. at Berthold and McCausland Aves.; Old English style; walls of mat brick laid in wide joint Flemish bond; two stories; upper portion half timbered of dark brown stained plaster boards and rough cast plaster; red shingle tile roofs; terrace across front with floor laid in Welsh quarry tile with two brick steps; hot-water heat; cost \$5500 to \$6000 each; plans by Thomas P. Saum, St. Louis.

Mo., St. Louis.—Porter Henry Webster will erect residence in Webster Park; two stories; frame; 27x31 feet; cost \$3500.

Mo., St. Louis.—Humphrey & Vickery, University City, will erect two brick residences in Parkview; 24x42 feet and 30x38 feet; cost \$6000 and \$7000.

Mo., St. Louis.—Balston Realty & Building Co., 5899 Delmar St., will erect two brick and stucco dwellings at Wellston Grove; 25x32 feet each; total cost, \$4000.

Mo., St. Louis.—E. D. Ruth, Jr., 301 N.

4th St., will erect two-story brick residence on W. Portland Pl.; 31x28 feet; cost \$4000.

Mo., St. Louis.—L. Kreinheder will erect two one-story dwellings at 4945 Loughborough St.; cost \$2400.

Mo., St. Louis.—W. Koenemann will erect \$14,000 dwelling at 2305 Holly Ave.

N. C., Asheville.—Colonel Lipscombe, Columbia, S. C., will erect cottage at Toxaway.

N. C., Asheville.—E. H. Newman of Atlanta, Ga., will erect residence at Toxaway.

N. C., Asheville.—Tallaferra Stockton, Jacksonville, Fla., will erect cottage at Toxaway.

N. C., Asheville.—W. Armstrong, Savannah, Ga., will erect residence at Toxaway.

N. C., Elizabeth City.—First Baptist Church, S. W. Gregory, secretary of building committee, will receive bids until December 26 to erect parsonage, exclusive of electric-light fixtures, heating apparatus, plumbing, painting, etc., but to include digging and construction of concrete pit for heating apparatus; certified check for \$500; plans and specifications at Mr. Gregory's office, Flora Bldg., Main and Water Sts., Elizabeth City.

N. C., Raleigh.—Beverly Williamson will erect cottage on Harrison Ave.

N. C., Raleigh.—F. H. Phillips will erect residence; nine rooms; brick veneer; cost \$6000.

N. C., Winston Salem.—S. J. Montague, 115 Church St., will expend \$4000 to erect dwellings; 22x38 feet; two stories; frame; shingle roof; plans and construction by owner. (Recently noted to erect three dwellings.)

Okla., Oklahoma City.—R. A. Vose of American National Bank will erect residence at 400 W. 16th St.; brick; cost \$41,000.

Okla., Oklahoma City.—G. A. Nichols will erect residence at 700 W. 18th St.; brick veneer; cost \$3000.

S. C., Charleston.—American Manufacturing Co. will erect frame dwellings at 50-54 Radcliffe St.; cost \$4000.

S. C., Greenville.—Mrs. E. N. Thompson will erect residence on Pinkney St.; cost \$2300.

S. C., Spartanburg.—N. L. Bennett, Clerk of Court, will erect residence.

Tenn., Erwin.—J. C. Davis will erect eight-room residence.

Tenn., Jackson.—A. J. Weldon will erect bungalow at 333 N. Royal St.; seven rooms.

Tex., El Paso.—Perry-Kirkpatrick Realty Co. will erect five bungalows on Tularosa St.; four and six rooms; cost \$15,000.

Tex., Palestine.—J. A. Engleman will erect two-story residence at Howard Ave. and Austin St.

Tex., San Antonio.—M. A. Ryan will erect several two-story residences on former West Texas Military Academy site; owner will superintend construction.

Va., Norfolk.—Sawyer Bros. will erect two residences; cost \$5000 each; construction by owner.

W. Va., Wheeling.—J. L. Robinson will erect residence in Stearns Addition.

## GOVERNMENT AND STATE

Ala., Montgomery.—Library.—Dr. Thomas M. Owen, director of State Department of Archives and History, is interested in erection (by private donations) of \$100,000 library building to be occupied by State Department of Archives and History; plans no immediate erection of building.

La., Jackson.—Hospital.—East Louisiana Hospital for Insane has plans by Favrot & Livaudais, New Orleans, La., for two buildings for criminal insane; 36x132 feet and 42x120 feet; reinforced concrete and veneer brick; tile and five-ply made roofing; cost \$15,000; cost of heating plant, \$1500; cost of lighting, \$500; construction mainly by inmates. (Recently noted.)

N. C., Durham.—Reformatory.—C. H. Watson of Charlotte, N. C., is manager of campaign fund to raise money to erect State reformatory for colored boys; cost \$3000.

## HOTELS

Ala., Birmingham.—Tutwiler Hotel Co., George G. Crawford, president, will open new bids December 2 to erect Tutwiler Hotel; 12 stories; 140x150 feet; 300 rooms; banquet hall to seat 350; represents investment of \$1,500,000; William Leslie Welton, Empire Bldg., Birmingham, and W. L. Stodart, 30 W. 28th St., New York, associate architects. (Recently noted.)

D. C., Washington.—Harrington Mills, The Grafton, will open bids in about two weeks to erect transient hotel; 90x50 feet; semi-fireproof construction; low pressure steam heat.

Ky., Pineville.—Continental Hotel Co. incorporated with \$50,000 capital stock to erect hotel on Virginia Ave.; 50 or more guest-rooms, half of which will be equipped with private baths; cost about \$50,000.

Ky., Sebree.—Ramsay Bros. will rebuild hotel for Sebree Springs Co.; ordinary construction; electric lighting; metal roof; cost \$15,000; plans not made; architect not selected; bids opened about spring of 1913. (Recently reported burned.)

Ky., Whitesburg.—S. E. Holcomb has plans by T. W. P. & E. L. Kirkbride, Whitesburg, for hotel building; 34x48 feet; mill construction; rubber roofing; bids opened.

Md., Lonaconing.—George Stern, Frostburg, Md., states improvements to Hotel Maryland include slight remodeling, painting and general overhauling. (Recently reported.)

Miss., Shubuta.—Mrs. M. J. Price contemplates rebuilding hotel recently reported burned.

N. C., Wilmington.—Henry E. Bonitz, 213 Princess Block, is preparing plans for remodeling Bonitz Hotel.

S. C., Greenwood.—A. Ten Eyck Brown, architect, 607 Forsyth Bldg., Atlanta, Ga., states plans for new Oregon Hotel are now ready; six stories; reinforced concrete construction; 75 rooms and baths; bids received until noon December 20 (extended date); contractors to apply for plans. (Joel S. Bailey and associates recently noted as to receive bids until November 15 to erect hotel to cost \$85,000.)

Tenn., Sulphur Springs (not a postoffice). W. W. Dillon of Nashville, Tenn., is interested in erection of \$50,000 hotel at Sulphur Springs.

Tex., Dallas.—Hiram Grossman, Dan Sonnen-thell, agent, it is reported, is having plans prepared for hotel at Commerce and Ray Sts.; 10 stories; 75x100 feet; 82,500 square feet floor space.

Tex., Galveston.—B. A. Cook and associates contemplate erection of hotel at 25th and Church Sts., to cost about \$100,000; probably reinforced concrete faced with brick; more than five stories.

Tex., Palestine.—Young Men's Business League is promoting erection of hotel; has option on site at Oak and Queen Sts.

Tex., Smithville.—J. J. Lowery of San Marcos, Tex., leased Robb Building and will enlarge and remodel for hotel.

Tex., Waco.—H. and J. Snaman will remodel and enlarge St. Charles Hotel; will install new front, remodel interior, provide 35 additional rooms, elevator, etc. (Recently noted.)

Tex., Waco.—W. W. Seley is having plans prepared by Roy E. Lane, Waco, for addition to State House; five stories; 90 rooms; electric elevators; roof garden; will also remodel present structure, provide lobby four times larger than present lobby, etc. (Recently noted.)

Tex., Waco.—Mrs. G. D. Streeter will erect store and hotel building; three stories; 50 rooms, each provided with bath; shower baths. (Recently noted.)

Va., Norfolk.—Metropolitan Hotel and Cafe incorporated with \$10,000 capital stock; George W. Haughwout, president; J. O. Persons, secretary; S. S. Wilkins, treasurer.

## MISCELLANEOUS

Ala., Mobile.—Auditorium.—Chamber of Commerce and Business League are interested in erection of auditorium.

Ala., Mobile.—Parish-house.—Trinity Episcopal Church will erect parish-house; cost \$4000 to \$5000. Address The Rector, Trinity Episcopal Church.

Ark., Hot Springs.—Hospital.—Independent Order B'nai B'rith, Dan Daniels, chairman of trustees, will soon award contract to erect proposed Levy Memorial Hospital; cost about \$200,000.

Fla., Tampa.—Clubhouse.—Bonfoey & Elliott, architects, Tampa, will open bids December 7 to erect Centro Asturiano Clubhouse; 180x85 feet; three stories; roof garden; buff brick, terra cotta, limestone and marble; marble staircase; corridors with marble wainscoting and tile floors; auditorium to seat 1500; cost about \$30,000. (Recently noted.)

Ga., Atlanta.—Orphanage.—Trustees of Baptist Orphans' Home plan to expend \$50,000 to enlarge orphanage.

Ky., Louisville.—Riding Academy.—Richard Schultz and others are interested in rebuilding Iroquois Riding Academy; cost \$40,000. (Recently reported burned.)

Miss., Scooba.—Sanatorium.—Scooba Sanatorium incorporated with \$10,000 capital

stock by E. L. Gilbert, Binsville, Miss.; J. B. Mooney and R. M. Quarles, both of Scooba; will erect sanatorium; 46x58 feet; fireproof construction; heating not determined; electric lighting; metal shingle roof; cost \$6000; construction under supervision of foreman.

N. C., Durham.—Hospital.—Dr. A. C. Adams is interested in erection of proposed Mercy Hospital; cost, including furnishings, \$30,000.

N. C., Rocky Mount.—Confederate Home.—General Assembly of Daughters of the Confederacy are considering erection of home for dependent widows of Confederate soldiers; cost \$10,000; F. A. Hampton, Rocky Mount, is interested.

S. C., Spartanburg.—Parish House.—Church of the Advent will erect parish house; cost \$18,000. Address The Pastor, Church of the Advent.

Tex., Dallas.—Clubhouses.—Dallas Automobile Club, A. A. Slaughter, secretary, will erect clubhouse; cost \$10,000.

Tex., Fort Worth.—Clubhouse.—James B. Ripley, First National Bank Bldg., states plans for clubhouse for Kentucky Club of Texas are not definite; contemplate erecting auditorium 50x50 feet; six rooms around it and several porches; cost \$40,000. (Recently noted.)

## RAILWAY STATIONS, SHEDS, ETC.

Ala., Tuscaloosa.—Birmingham & Gadsden Railway will erect car barns.

Md., Baltimore.—Maryland & Pennsylvania Railroad, S. J. Norris, general manager, North Ave. and Oak St., has plans by Wyatt & Nolting, Keyser Bldg., Baltimore, for depot adjoining and forming "L" to present structure at North Ave. and Oak St.; brick, terra-cotta and marble; North Ave. side two or three stories; southern side three or four stories; main waiting-room about eight feet below street level, and from which will open concourse from which steps will lead to track level; upper floors for offices; chutes, etc.; size of building, 45x90 feet; fireproof; steam heat; combined freight and passenger elevator; slag roof. (Previously noted.)

N. C., High Rock.—Winston-Salem South-bound Railway Co., E. B. Pleasants, chief engineer, Wilmington, N. C., has plans for Union Station.

Tex., Corpus Christi.—San Antonio & Aransas Pass Railroad Co., J. S. Peter, general manager, San Antonio, Tex., has plans by Henry F. Phelps, San Antonio, for passenger station; 40x140 feet; fireproof construction; gravel roof; cost \$15,000. (Recently noted.)

Tex., Temple.—Missouri, Kansas & Texas Railway Co., A. M. Atcheson, chief engineer, Dallas, Tex., will erect passenger station; construction to begin about January 1; cost about \$60,000.

Tex., Victoria.—Southern Pacific Company, A. V. Kellogg, engineer maintenance of way, Houston, Tex., is reported as to probably erect depot; cost \$15,000 to \$20,000.

## SCHOOLS

Ala., Valley Head.—School Trustees plan to rebuild school reported burned.

Ga., Macon.—Bibb County School Board will erect high school on Lanier High School site on Cotton Ave.; cost at least \$100,000.

Ga., Washington.—St. Joseph's Academy will rebuild college reported burned.

Ky., Louisville.—Board of Education approved purchase of site at 26th and Date Sts., and will erect school; lot 25x469 feet; tentative plans being prepared.

Mo., Kansas City.—Women's Home Mission Society of Methodist Episcopal Church will erect training school at 15th St. and Denver Ave.; five stories; brick, stone and concrete; cost \$75,000; will connect with present structure by 25-foot passageway; plans by Shepard, Farrar & Welser, Kansas City.

Mo., Kansas City.—Our Lady of Good Council, Rev. J. T. Walsh, pastor, has plans by Miller-Opal & Torblitt, Kansas City, for parochial school; 60x90 feet; three stories; fireproof construction; steam heat; tile roof; cost \$30,000; day labor. (Recently noted under "Churches.")

Mo., Mexico.—School Board is considering issuance of \$70,000 worth of bonds for school improvements.

N. C., Oak Ridge.—Oak Ridge Alumni will inaugurate campaign to raise \$25,000 to erect alumni building at Oak Ridge Institute; W. E. Allen, chairman of committee, Greensboro, N. C.

Okla., Muskogee.—W. H. Davis, clerk of Board of Education, will receive bids until November 29 as follows: (1) for erection of addition and alterations to Central high

school according to plans by Wilder & Wight, Kansas City, Mo.; (2) installation of plumbing system; (3) complete installation of heating and ventilating system; (4) complete installation of electric wiring system; plans and specifications from W. H. Davis, Muskogee, on deposit of certified check for \$100, payable to treasurer of Board of Education; certified checks with bids as follows: General contract, \$500; plumbing, \$500; heating, \$500; electric wiring, \$250. (Recently noted.)

Okla., Sand Springs.—School Board District No. 19 receives bids until 5 P. M. December 2 for erecting two-story brick high-school building; plans on file at office of A. H. Watts, architect, at Sand Springs; certified check for \$20 for plans by mail; John Hall, clerk.

Tenn., Cumberland Gap.—Lincoln Memorial University inaugurated campaign to raise \$40,000 to erect nurses' home and for installation of additional operating-room in medical department of university at Knoxville, Tenn.; Drs. S. D. Acuff, S. M. Miller, Oliver W. Hill and others, committee.

Tenn., Johnson City.—Bids received until noon December 19 by building committee of City Council to erect high-school building; fireproof; plans and specifications by Bauman Bros., Knoxville, Tenn., and can be seen in office of architects or office of Board of Education at Johnson City; certified check for 5 per cent. of amount of bid; bids addressed to chairman of building committee, J. H. Pierce, 111 Spring St., Johnson City; voted \$50,000 bond issue. (Previously noted.)

Tenn., Nashville.—City will probably petition Legislature for authority to issue bonds to erect east wing to high school, to cost about \$250,000. Address The Mayor.

Tenn., McMoresville.—Methodist Episcopal Church North will erect \$10,000 college building. Address The Pastor, Methodist Episcopal Church North.

Tex., Houston.—City Council accepted plans by M. J. Sullivan, city engineering department, Houston, for north side Junior high school; three stories; frontage 214 feet; basement equipped for manual training, wood turning, laundry, etc.; 16 classrooms; auditorium to seat 600.

Tex., Houston.—Dan C. Smith, City Secretary, will receive bids until December 16 to erect school; three stories; 20 rooms; fireproof; work let in six separate contracts, as follows: (1) general work; (2) heating; (3) plumbing, sewerage and gasfitting; (4) wiring; (5) vacuum cleaner; (6) steel lockers; certified check with general contract bid for 5 per cent. amount of bid, and with other bids for 10 per cent. amount of bid, all checks made payable to H. B. Rice, Mayor; contractors to have had two years' successful experience in reinforced concrete building work; plans and specifications at office of City Engineer.

Tex., Huntsville.—Sam Houston Normal School Trustees accepted plans by Waller & Fields, Fort Worth, Tex., for gymnasium building; cost \$25,000.

Va., Portsmouth.—School Board plans to erect school for negroes.

Va., Virginia Beach.—Virginia Beach School Board, G. C. Sorey, chairman, will expend \$15,000 to erect school building; ordinary construction; steam heat; electric lighting; asbestos shingle roof; plans by Arnold Eberhard & Son. (Recently noted to receive bids until November 30.)

W. Va., Beckley.—Town District, Raleigh county, voted \$50,000 bond issue to erect high school. Address District School Trustees.

W. Va., Benwood.—Board of Education of Union school district rejected all bids to erect school and will receive new bids; 30 rooms; fireproof; cost \$80,000. (Recently noted.)

W. Va., Cowen.—Glade School District, Webster county, authorized \$22,000 bond issue to erect district high school. Address District School Trustees.

W. Va., Huntington.—C. W. Kendle, J. L. Hawkins and U. S. Chadwick, committee of Board of Education, will receive bids addressed to Versus T. Ritter, architect, Huntington, until December 2 to erect eight-room school; plans and specifications at office of architect.

W. Va., Janelaw.—Lewis county authorized \$8000 bond issue to erect high school. Address County Commissioners, Weston, W. Va.

W. Va., Welch.—Browns Creek School District, McDowell county, authorized \$150,000 bond issue to erect district high school. Address District School Trustees.

## STORES

Ala., Birmingham.—F. A. Coleman will erect one-story and two-story frame build-



ings at Sixteenth Ave. and 15th St.; cost \$2900 and \$1500, respectively.

Ala., Birmingham.—Thrac Martin will expend \$4000 to repair two-story brick building at Second Ave. and 19th St.

Ala., Birmingham.—Keystone Realty Co. will erect two-story frame building at 2914 Juniper Ave.; cost \$2950.

Ala., Mobile.—S. Elchold will erect drug store; 70x111½ feet; five or six stories; cost \$40,000 to \$50,000; fireproof; to be occupied by Mobile Drug Co.; construction within six months.

Ala., Mobile.—Van Antwerp Drug Co. will erect wholesale drug building at Royal and St. Louis Sts.

Fla., Jacksonville.—H. R. Finn will remodel building at Laura and Adams Sts. for stores and offices; will erect extension 58x103 feet; lower floor for stores; upper floors for offices.

Fla., Key West.—S. H. Kress & Co., 396 Broadway, New York, will open bids January 7 to erect store building at Duval and Fleming Sts.; brick; cost \$100,000.

Fla., St. Petersburg.—Welsh Realty Co. will erect store building at 459 Central Ave.; two or three stories.

Ga., Atlanta.—Greenfield estate will erect store and factory building on South Forsyth St.; seven stories; frontage 70 feet; brick and concrete; fireproof; stores on ground floor; basement for storage; upper floors for manufacturing lofts.

Ga., Ellijay.—N. L. & J. S. Tankarsley will erect two brick stores to replace building (recently reported) burned; 24x80 feet each; fireproof construction; block tin roof; cost \$5000.

Ga., Hephzibah.—W. B. Frost and F. W. Sewell will rebuild store occupied by B. M. Green; 25x50 feet; brick. (Recently reported burned.)

Ga., Macon.—L. A. Thomas plans to erect store building at Oglethorpe St. and Broadway; two stories; brick.

Ga., Savannah.—A. S. Rosenhoff will erect building at Broad and Minis Sts. to contain three stores and two apartments; red pressed brick.

Md., Frederick.—E. Rosenour & Sons will erect store, office and apartment building at Market and Church Sts.; three stories; 35½x62 feet; brick; plans by B. Eward Keener, Frederick.

Mo., St. Louis.—Holy Ghost Parish will expend \$3500 to alter store at 4526 N. Market St. Address The Pastor, Holy Ghost Parish.

Mo., St. Louis.—Park Amusement Co. will expend \$3000 to alter store at 1101-03 Park St.

N. C., Asheville.—John H. Jenkins will erect business building; three stories; concrete and brick; construction under supervision of Ed McDowell.

N. C., Hendersonville.—George W. Vanderbilt will erect business building on Main St.

N. C., Thomasville.—Crutchfield Hardware Co. will erect store building on Main St.; brick.

N. C., Wadesboro.—Dr. R. D. Ross opens bids in about 10 days to erect business building; 52x100 feet; two stories; ordinary construction; electric lighting; Barrett specification roofing; plans by Sayre & Baldwin, Anderson, S. C.

N. C., Warrenton.—S. W. Rose will erect brick store to replace structure reported burned.

N. C., Winston-Salem.—Charles H. Jones will erect four one-story stores at 3d and Church Sts.; water and sewer connections; electric lights; cost \$5000.

N. C., Wilmington.—H. W. Konig is having plans prepared by Henry E. Bonitz, 213 Princess Block, Wilmington, for two-story block of stores and apartment-houses; steel construction; plate glass; metal window frames; Coulson sash bars; Barrett specification roofing; steam heat; electric lighting.

Okla., Stroud.—L. Egnaw will probably erect store on site of recently reported burned restaurant occupied by W. T. Todd.

Tenn., Erwin.—Barber Bros. will erect business building on Main St.; brick.

Tenn., Memphis.—F. W. Mayo will erect addition to store at 779-81 N. 6th St.; cost \$8000.

Tenn., Nashville.—Eighth Ave. Real Estate Co. incorporated with \$25,000 capital stock by T. Garland Tinsley, D. F. C. Reeves, Edwin Warner, G. A. Harrington and J. M. Anderson; will erect store and office building on Eighth Ave. between Broadway and Church St.; at least two stories.

Tenn., Nashville.—Richard C. Plater is having plans prepared by Hart & Gardner, 1004 Stahlman Bldg., Nashville, for business

block to contain six stores at Broadway and 9th St.; 123x110 feet; nearly 50 feet high; faced with white glazed terra-cotta; trimmed with relief designs; plate-glass fronts; steam heat; cost \$50,000. (Mr. Plater previously noted to erect store and hotel building at Broadway and Vauxhall St.)

Tex., Corpus Christi.—E. E. Furman will erect two-story fireproof brick store building; 50x120 feet.

Tex., Corpus Christi.—E. L. Bernard will erect store and office building on Chaparral St.; four stories; brick; lower floor for stores; upper floors for offices; cost \$15,000.

Tex., Palestine.—Ivanhoe Lodge No. 15, Knights of Pythias, will receive bids until December 19 to erect store and lodge building. (See "Association and Fraternal.")

Tex., San Angelo.—Charles W. Hobbs has plans by O. Ruffini, San Angelo, for wool store; 80x100 feet; fireproof construction; electric elevator; date of opening bids not set. (Recently noted under "Warehouses.")

Tex., Waco.—Mrs. G. D. Streeter will erect store and hotel building. (See "Hotels.")

Tex., Waco.—Rotan Development Co. will erect business building at Franklin and 5th Sts.

Va., Norfolk.—United Cigar Stores Co., main office, New York, local office, Granby and Plum Sts., leased building at Main and Atlantic Sts. and will, it is reported, expend \$20,000 to remodel; will provide eight marble and glass-front stores on lower floor; B. F. Mitchell, Norfolk, will have charge of affairs locally, in connection with architects in New York office.

Va., Norfolk.—Griffin Bros. will erect business building; frame; metal roof; 40x50 feet; shed 24x50 feet.

D. C., Washington.—R. T. Warwick, 501 14th St. N. W., will, it is reported, erect building at 11th and E Sts. N. W.

W. Va., Wheeling.—F. H. Lange and others are reported to erect store, office and theater building. (See "Theaters.")

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Ala., Birmingham.—E. M. Tutwiler awarded contract to Wells Bros. & Co., New York, to erect Ridgely Apartments on 21st St.; steel construction; eight stories; open court 78x50 feet; Florentine renaissance style; terra-cotta trimmings; elevators; roof garden paved with tile; cost \$500,000; plans by J. E. R. Carpenter, Metropolitan Tower Bldg., New York. (Recently noted.)

Fla., Jacksonville.—Charles Drayer, 507 Clark Bldg., awarded contract to Chamberlain & Gillespie to erect double apartment-house; 28x48 feet; ordinary construction; gas heaters; electric lighting; metal roof; cost \$4000; plans by Mark & Sheftall, Jacksonville.

Fla., Orlando.—W. K. Robertson has plans by and awarded contract to J. H. Kirkland (not J. Pounds as recently reported) to erect apartment-house; 34x54 feet; mill construction; electric lighting; shingle roof; cost \$5500.

Ky., Lexington.—J. R. Williamson & Son, Louisville, Ky., is reported to have contract to erect apartment-house at High and Upper Sts.; three stories; brick and stone; cost \$20,000.

### ASSOCIATION AND FRATERNAL

Va., Norfolk.—Colored Knights of Pythias awarded contract to J. W. Wells, Norfolk, to remodel building at 787 Church St. for lodge purposes; cost \$3200.

### BANK AND OFFICE

Ala., Mobile.—City Bank & Trust Co. awarded contract to George A. Fuller Co., Munsey Bldg., Washington, D. C., to erect eight-story addition and two additional stories to bank and office building; 50x115 feet; fireproof; tar and gravel roof; cost about \$150,000; plans by George B. Rogers, Mobile. (Previously noted.)

La., New Orleans.—Frank B. Hayne and H. DeLancey Vincent awarded contract to Fromberg & Drennan, New Orleans, to erect 12-story office building, first eight floors of which will be occupied by Queen & Crescent Railroad Co.; steel and pressed brick; fireproof; engine-room and coal bunkers in basement; plans by Frank P. Gravelly & Co., 320 Carondelet St., New Orleans; Frank B. Coleman, consulting engineer, New Orleans. (Previously noted.)

N. C., Warrenton.—Bank of Warren awarded contract to Wise Granite Co., Richmond, Va., to erect bank building; two stories;

25x40 feet; brick; stone front and trimmings.

Tex., Waco.—J. T. Primm awarded contract to erect office and store building recently noted. (See "Stores.")

Va., Sedley.—Bank of Sedley awarded contract to O. J. High, Sedley, to erect brick bank building; 22x38 feet; flat metal roof; cost \$2500. (See "Machinery Wanted.")

### CHURCHES

Tenn., Memphis.—Cumberland Presbyterian Church awarded contract to J. W. Williams to erect edifice at 275 S. Dudley St.; cost \$6000.

Tex., Smithville.—Catholic Church, Rev. Father Gallagher, pastor, will expend \$15,000 to erect edifice; 52x112 feet; fireproof reinforced concrete construction; hot-air heat; electric lighting; metal tile or metal shingle roof; plans by Leo M. J. Diehlman, San Antonio, Tex.; contract recently noted awarded to W. D. Fans of Southwestern Concrete Co., Smithville. (See "Machinery Wanted.")

### CITY AND COUNTY

Fla., Tampa.—Hospital.—City awarded contract to W. B. Frisbie, Tampa, to erect annex to Gordon Keller Memorial Hospital. (Recently noted.)

Ga., Augusta.—Hospital.—Special Hospital Committee awarded contract at \$122,029 to King Lumber Co., Charlottesville, Va., to erect Barrett and Lamar wings, to City Hospital recently noted; mixed construction; steam heat; gas and electric lighting; three power electric elevators; composition roofing; these buildings are part of a group of buildings, total cost estimated at \$500,000; plans by G. Lloyd Preacher, Augusta. (See "Machinery Wanted.")

### DWELLINGS

Ark., Little Rock.—West End Real Estate Co. has contract to erect dwelling; ordinary construction; electric lighting; shingle roof; cost \$3000. (Recently noted under "Stores.")

D. C., Washington.—Isabelle Javins awarded contract to F. L. Wagner, 1413 H St. N. E., to erect two two-story brick dwellings at 724-26 11th St. S. E.; cost \$6000; plans by W. S. Plagers, 210 N. Capitol St., Washington.

D. C., Washington.—George Cutter awarded contract to F. L. Wagner, 1413 H St. N. W., Washington, to erect two dwellings and

### THEATERS

Ark., Little Rock.—Crystal Theater Co. incorporated with \$3000 capital stock by J. W. Lippincott and O. A. Bandy.

La., New Orleans.—Walter Baldwin, Baronne Theater, is reported as contemplating erection of theater on Canal St.; cost about \$250,000.

N. C., Wilmington.—J. M. Solky is reported to enlarge and improve Grand Theater.

Tenn., Memphis.—Martin Beck, managing director Orpheum Circuit Co., Putnam Bldg., New York, may be addressed relative to erecting theater to seat 2000 to 2500 people. (Recently noted.)

W. Va., Wheeling.—F. H. Lange, Lou Gutmann, Samuel Ungerleider and others are reported to erect theater at 14th and Market Sts.; shell of offices on two sides and theater in center and rear; total seating capacity of 2500; 39 mezzanine boxes; office portion five stories, with stores on first floor.

### WAREHOUSES

Ark., Jonesboro.—Farmers' Union will erect warehouse; cost \$5000.

Fla., Jacksonville.—Dignan & Murphy will erect one-story brick warehouse at Monroe and Catherine Sts.; cost \$4000.

Ky., Owensboro.—Owensboro Tobacco Warehouse Co. incorporated with \$50,000 capital stock by J. H. Nave, J. F. Vickers and I. P. Barnard.

Mo., St. Louis.—National Roofing Co. will erect warehouse west of Walsh tracks, between Etzel and Barmter Aves.

N. C., Mayaville.—Mayaville Tobacco Warehouse Incorporated with \$10,000 capital stock by G. P. Rogers and others.

Va., Petersburg.—Carrollton Tobacco Warehouse Co. incorporated with \$200,000 capital stock; C. C. Crawford, president; Elam Perkins, vice-president; I. P. Barnard, secretary; all of Louisville, Ky.; J. F. Jett, treasurer, Carrollton, Ky.

garage on Broad Branch Rd. between 30th and 31st Sts. N. W.; cost \$21,000; plans by A. B. Mullett & Co., Union Trust Bldg., Washington.

D. C., Washington.—Mrs. E. F. Morgan awarded contract to F. W. Parks to erect dwelling at 363 Fessenden St. N. W.; cost \$2500; plans by Hornblower & Marshall, 1410 H St. N. W., Washington.

D. C., Washington.—Chester G. Gilbert, 2002 G St. N. W., awarded contract to R. L. Jennings, 1863 Newton St. N. W., Washington, to erect dwelling at 3244 Kilgale Rd.; cost \$6000; plans by MacNeil & MacNeil, Union Trust Bldg., Washington.

D. C., Washington.—S. F. Tallafiera awarded contract to erect store and dwelling. (See "Stores.")

D. C., Washington.—John C. Ewald, 538 Center Market, awarded contract to Columbia Building & Investment Co. to erect dwelling at 1242 Florida Ave. N. E.; cost \$7075; plans by Charles White.

D. C., Washington.—Real Estate Trust Co. awarded contract to John H. Nolan, 1413 G St. N. W., Washington, to erect 20 dwellings.

D. C., Washington.—J. P. Klefer, 1412 U St. N. W., awarded contract to Burgess & Parsons, 709 10th St. N. W., Washington, to erect dwelling and stable at 2630 12th St. N. E.; cost \$3500; plans by N. R. Grimm, Bond Bldg., Washington.

Fla., Tampa.—Macfarlane Investment Co. awarded contract to Logan Bros., Tampa, to erect bungalow on Lime Ave.

Md., Catonsville.—W. O. Pierson will expend \$4000 to erect dwelling; 39x34 feet; frame; hot-water heat; shingle roof; plans and construction by John H. Gerwig, Catonsville; practically all subcontracts let. (Recently noted.)

Mo., St. Louis.—Henry E. Pauk awarded contract to Continental Building & Construction Co., St. Louis, to erect residence at Kingsbury Pl. and Belt Ave.; 60½x23 feet; two stories and finished attic; Elizabethan style; faced with No. 100 hydraulic brick, with half timber and plastered bays; dark blue slate roof; laundry and heating plant in basement; hardwood floors; palm-wood with rockwood tile walls; garage in rear of similar architecture to residence; 37x25 feet; hot-water heat; cost \$40,000; plans by Clymer & Drischler, St. Louis.

N. C., Concord.—Dermot Shemwell and J. E. Foy awarded contract to D. K. Cecil to erect two dwellings on Sisk property; cost about \$4500 each.

N. C., Newbern.—L. J. Taylor will erect residence; 50x60 feet; three stories; mill construction; steam heat; gas and electric lighting; slate roof; cost \$9000; plans by B. H. Stephens, Wilmington, N. C.; contract awarded to H. S. Hancock. (See "Machinery Wanted.")

Tenn., Erwin.—Christian Church awarded contract to S. L. Price to erect parsonage.

Tenn., Erwin.—Methodist Episcopal Church awarded contract to S. L. Price to erect parsonage.

Tenn., Erwin.—Gull Barber awarded contract to E. N. Harrison to erect residence at Opekiska and Willow Sts.; 26x36 feet; eight rooms; also one ten-room dwelling; ordinary and mill construction; electric lighting; cypress shingle roof; cost \$1500 and \$2300, respectively.

Tenn., Memphis.—J. A. Spilberger awarded contract to F. A. Casey, Memphis, to erect residence at 1439 Faxon Ave.; cost \$4800.

Tenn., Memphis.—Dr. R. B. Maury awarded contract to Jones Bros. to erect residence on N. Parkway near Stonewall St.; cost \$11,000.

Tenn., Memphis.—P. LeClere awarded contract to J. Y. Callahan to erect residence at 1863 Cowden Ave.; cost \$3500.

Tenn., Memphis.—H. W. Lemon awarded contract to James Witty to erect residences at 1044 and 1056 Greenlaw Ave.; cost, \$2500 each.

Tenn., Memphis.—W. F. Hamilton awarded contract to Dujach & Malkin to erect residence at 1228 Sledge Ave.; cost \$6000.

Tenn., Memphis.—B. A. Willis awarded contract to J. M. Harris to erect residence at 1028 Meriwether Ave.; cost \$6000.

Tex., Pleasanton.—F. B. Ricks awarded contract to C. W. Davis, Pleasanton, to erect dwelling; 32x44 feet; ordinary construction; shingle roof; cost \$3500; plans by H. L. Scott & Co., San Antonio, Tex. (Recently noted.)

Tex., Thomaston.—Mrs. C. McCrabb awarded contract to Bailey Mills Co., Victoria, Tex., to erect dwelling; frame; ordinary construction; cost \$3500; plans by M. C. Kleuser, Cuero, Tex. (Recently noted.)

Tex., Yonkum.—Irvin Ross awarded contract to erect three dwellings on W. Gonzales St. and Elks Ave.

### GOVERNMENT AND STATE

Ky., Lexington.—Experiment Station.—Kentucky Agricultural Experiment Station, J. H. Kastle, director, awarded contract at \$10,540 to Congleton Lumber Co., Lexington, to erect serum laboratory and sheds with capacity for 300 hogs; laboratory two stories and basement; brick; 37x45 feet; basement for cold-storage, boxing, shipping and heating; will provide for production of 30,000 cubic centimeters of serum weekly; plans by Anderson & Frankel, Lexington. (Recently noted.)

Okla., Fort Hill.—Hospital.—Constructing Quartermaster awarded contract at \$23,119 to Mississippi Valley Construction Co. to erect post hospital, including wiring, plumbing, etc. (Previously noted.)

Tex., Brownwood.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., awarded contract at \$62,055 to Bailey-Marsh Construction Co., Minneapolis, Minn., to erect post-office. (Recently noted.)

### HOTELS

Ark., Little Rock.—Fred W. Allsopp awarded contract to A. O. Campbell to erect hotel at Capitol Ave. and Gaines St.; cost \$60,000.

Ky., Dawson.—New Century Hotel Co. awarded contract to erect annex to hotel; 50 rooms; five stories; fireproof; slate roof. (Previously noted.)

### MISCELLANEOUS

Ala., Birmingham.—Home.—Pisga Home Association, 417 Chamber of Commerce Bldg., awarded contract to J. L. Burns, East Lake, Station Birmingham, to erect men's home or Orr Bldg. at G and 10th Sts.; cost \$6000. (Recently noted.)

### RAILWAY STATIONS, SHEDS, ETC.

Ga., Macon.—Macon, Dublin & Savannah Railroad Co., J. T. Wright, general manager, will expend \$30,000 to erect freight depot; 43x300 feet; fireproof construction; Webster system of heating; tar felt and gravel roof; plans by railroad engineer; contract awarded to Jones Bros., Macon. (Recently noted to cost \$75,000.)

Tenn., Lenoir City.—Southern Railway Co., H. W. Miller, assistant to president, 621 Equitable Bldg., Atlanta, Ga., awarded contract to R. M. Calloway to erect passenger depot; frame; cost, exclusive of plumbing, heating, etc. (Recently noted.)

### SCHOOLS

D. C., Washington.—District Commissioners awarded contract at \$44,910 to Davis Construction Co., Union Trust Bldg., Washington, to erect National Training School for Girls, Conduit Rd.; fireproof construction; plans by T. J. D. Fuller, 806 17th St. N. W., Washington. (Recently noted.)

## RAILROAD CONSTRUCTION

### RAILWAYS

Fla., Bartow.—Reported that the Seaboard Air Line has authorized the completion of its line into Bartow. W. L. Seddon, Portsmouth, Va., is chief engineer.

Ala., Monroeville.—The Manatee & Repton Railroad Co. will build next year with its own forces a line from Suider to Maros, Ala., 12 miles. It is also proposed to build from Suider to Bay Minette, Ala., but plans as to this are yet indefinite.

Ark., Little Rock.—The Arkansas Interurban Construction Co., capital \$500,000, is incorporated to build an interurban railway from Little Rock to Hot Springs, Ark., about 50 miles. The directors are W. H. Garafolo, president; W. S. Sorrels and O. D. Tucker, vice-presidents; L. Garrett, secretary; M. B. Moore, treasurer; J. A. Bowman, Justin Matthews, Hamp Williams, H. M. Westcott, E. C. Corich, C. S. McCain and M. B. Sanders.

Ark., Mena.—The Mena & Hot Springs Railroad Co., Eugene Cox, president, is reported negotiating with a view to beginning construction of its projected line from Mena to Hot Springs, about 65 miles, for which charter has been extended.

Fla., Frost Proof.—The Atlantic Coast Line is reported to have extended train service from Frost Proof to Sebring, Fla., about 18½ miles, and also to have opened for business a branch from Florence Villa to Niles, Fla., about 5½ miles.

N. C., Asheville.—Buncombe County Commissioners awarded contract to N. P. Corn to erect schools at Haw Creek and Chunn's Cove.

### STORES

Ala., Oneonta.—E. B. Roberts awarded contract to T. G. Cox, Oneonta, to erect store building; 50x50 feet; two stories; fireproof construction; fireproof guaranteed roofing; cost \$3500; plans by owner. (Recently noted.)

D. C., Washington.—J. Witt awarded contract to A. Zirkle to erect store at 1492 H St. N. E.; cost \$15,000; plans by Hunter & Bell, 503 7th St. N. W., Washington.

D. C., Washington.—S. F. Tallafiera awarded contract to Fox & Lewis to erect store and dwelling at 2628 11th St. N. W.; cost \$3900; plans by Hunter & Bell, 503 7th St. N. W., Washington.

Md., Baltimore.—Joseph Schamberger, 2122 E. Baltimore St., Baltimore, has contract for improvements to building at southeast corner Howard and Baltimore Sts.; plans by Louis Levi, Philadelphia, Pa., provide for plate-glass store fronts on both Howard and Baltimore Sts., new elevators, steam-heating system, etc.; cost \$10,000.

Okla., Chickasha.—E. C. Burton awarded contract to W. F. Warfield to erect brick building on 2d St. between Chickasha and Kansas Aves.; 65x75 feet; one story; three rooms.

Tenn., Nashville.—Standard Furniture Co. will erect building at Third Ave. and Commerce St. for sample rooms; 85x100 feet; four stories and basement; ordinary construction; steam heat; two power elevators; contract awarded to Bush Building Co.

Tex., Beaumont.—Orleans Realty Co. awarded contract to H. D. Applegate to erect business building at Orleans and Crockett Sts.; brick; two stories; foundation to support two additional stories; cost \$25,000 to \$30,000; plans by H. C. Maure, Beaumont.

Tex., Waco.—J. T. Primm awarded contract to erect store and office building; 131x140 feet; electric lighting; Barrett specification roofing; plans by T. Brooks Pearson, 1509 Amicable Bldg., Waco. (Recently noted.)

### THEATERS

Md., Baltimore.—Pearce & Sheek, 415 E. Baltimore St., awarded contract to Fidelity Construction Co., 64 Knickerbocker Bldg., Baltimore, to erect theater at 1110 to 1116 W. Baltimore St.; two stories; ornamental sheet-iron front; tile roof; seating capacity, 1200 to 1500; cost \$35,000; plans by George Spedden. (Recently noted.)

### WAREHOUSES

Ky., Paducah.—Dickerson Tobacco Co. awarded contract to Jack Cole to erect addition to warehouse, 81x165 feet; brick.

S. C., Fort Mill.—Fort Mill Manufacturing Co. awarded contract to Z. V. Bradford, Rock Hill, S. C., to erect warehouse; 50x100 feet; two stories. (Previously noted.)

Fla., Jacksonville.—The Florida Interurban Railway & Tunnel Co. is reported to have made partial surveys for its proposed line from Jacksonville to St. Augustine and Pablo Beach, 48 miles. M. W. Bates is president and E. M. Gibbon chief engineer at Jacksonville.

Fla., Mulberry.—O. S. Lanier of Bartow, Fla., according to a report quoting an official of the Seaboard Air Line, is constructing the extension from Mulberry to Bartow, 8½ miles.

Fla., Orlando.—Information concerning the Interurban Traction Co. is that six miles of line are immediately projected from Orlando to Winter Park, through slightly rolling country, but that altogether 45 miles are contemplated from Kissimmee to Sanford via Orlando. W. C. Temple is president; E. F. Sperry and H. Carl Dann, vice-presidents; L. L. Payne, treasurer; others also interested are C. R. Harper, T. P. Warlow and M. O. Overstreet of Orlando.

Ga., Blakely.—The Blakely Southern Railroad Co. proposes to build extensions from Blakely to Bluffton, 11 miles; also from Callafield to Donaldsonville, Ga., 21 miles, but there is no decision as to when construction will probably begin.

Ga., Elberton.—The Elberton & Eastern Railroad, according to a report quoting an officer, projects an extension from Tignall to Lincolnton, Ga., 18 miles. Line now under construction is Elberton to Tignall, 21 miles,

the contractor being J. F. Cogan & Co. of New York.

Ga., Tifton.—Cook & Lanneau, W. J. Lewis and others are reported to have begun survey from Americus and Tifton for the Americus, Tifton & Atlantic Railway, in which I. W. Myers, H. H. Tift and others are interested.

Ky., Beattyville.—J. C. Codell is reported awarded a contract for construction of the Louisville & Nashville's new line from Beattyville to Athol, Ky., about 10 miles.

La., Alexandria.—The Rock Island lines, says a report, contemplate construction of a new line between Alexandria and New Orleans. J. B. Berry, Chicago, Ill., is chief engineer.

La., Franklin.—The Franklin & Abbeville Railway has made a survey for an extension from Milton to Eunice, La., 45 miles, upon which construction may begin within a few months. W. Y. Kemper is chief engineer at Franklin, La.

La., New Friendship.—The North Louisiana & Gulf Railway, says a report quoting an officer, is building an extension from New Friendship to Bloyd, three miles.

Miss., Laurel.—The Laurel Light & Railway Co. is reported to have let contract to N. G. Gardiner of Laurel for grading the proposed interurban railway from Laurel to Ellisville, Miss., about 10 miles. It must be completed by January 18.

Miss., Norfolk.—An officer of the Natchez, Columbia & Mobile Railroad is reported saying that contract has been let to Bird & Bradshaw of Columbia, Miss., for nine miles of line from near Jayess to Tilton.

Mo., Flat River.—The Mississippi River & Bonne Terre Railway is reported to have begun operation of its branch from Flat River to Esther, 1.6 miles.

N. C., Rocky Mount.—The Atlantic Coast Line, says a report, will build second track between Selma and Parkton, 62½ miles. E. B. Pleasant is chief engineer at Wilmington, N. C.

N. C., Rutherfordton.—It is understood that the South Atlantic & Western Railroad Co., recently formed to fulfil the plans of the South Atlantic Trans-Continental Railroad Co., 165 Broadway, New York, is proceeding with its organization, but is not yet prepared to announce its plans. J. L. Council is secretary at Asheville, N. C. H. R. Nickerson, New York, is president. (See Manufacturers Record November 14.)

N. C., Wilkesboro.—Capt. W. G. Corpening of Asheville is reported given a contract to build seven miles of line for the Yadkin River Railroad between Wilkesboro and Boone, N. C.

N. C., Wilmington.—The New Hanover Transit Co. is making preliminary survey for a railway over a right of way to Carolina Beach, 15 miles. It is hoped to start work next spring and complete by season of 1914. Company owns 3½ miles of road from Carolina Beach to pier on Cape Fear River and other property. A. W. Pate is president and Jos. J. Loughlin secretary and treasurer.

S. C., Columbia.—G. E. Shand, chief engineer for the Carolina & Georgia Railway, is reported to have completed location survey from Columbia to Monetta, and preliminary survey from there to Graniteville, 60 miles, where connection will be made with the Augusta & Alken Railway. Date of receiving bids not decided.

Tenn., Memphis.—J. R. Pleasants, secretary, treasurer and general superintendent Memphis Interurban Co., says it is proposed to build a line 150 miles long from Memphis, Tenn., to Jackson, Miss., via Clarksdale and Belzoni, the route being through rolling country. It is not decided when bids will be received for construction.

Tex., Brownsville.—A stockholders' meeting of the Rio Grande Railway is reported to have authorized the issue of bonds up to \$1,000,000 for improvements, which is to include the conversion of the line, 23 miles long, from narrow to standard gauge. C. L. McManus is vice-president and general manager.

Tex., Brownwood.—The Gulf, Colorado & Santa Fe Railway is reported to have awarded contract to the J. A. Ware Construction Co. of St. Louis to build its division terminals at Brownwood, which will cost about \$500,000. F. Merritt, Galveston, Tex., is chief engineer. (See Manufacturers Record October 31.)

Tex., Dalhart.—C. H. Sharman, general manager for the purchasers of the Enid, Ochiltree & Western Railroad, says it is proposed to spend \$300,000 to complete the grade, \$225,000 having been expended in construction by the original promoters. Besides, there

will be \$600,000 issued in stocks and bonds to cover cost of rails and other track material and the track construction. It is proposed to limit the security to the amount of actual cash expended for the work. There is now 13 miles of line complete from Dalhart to Wilcoe, which is to be extended from Wilcoe to Ochiltree, 100 miles, on which there is 21 miles of finished roadbed from Wilcoe to Dumas, leaving 79 miles of grade to be built via Parksdale, Jarvis and Hansford. Average cost of construction to complete line \$9000 per mile. D. C. Morris is chief engineer. (See Manufacturers Record October 24.)

Tex., Denison.—John R. Cullinane of St. Louis is reported representing capitalists who contemplate construction of an electric interurban railway from Denison, Tex., to Derant, Okla., about 20 miles. John Scullin, also of St. Louis, may be interested.

Tex., Gainesville.—C. B. Dorchester, Sherman, Tex., says that neither he nor Thomas Randolph of St. Louis are interested with J. L. White of the Republic Trust Co. of Dallas in the proposition to build a railway from Gainesville to Whitesboro and Sherman. A preliminary survey is being made, but Mr. White is not interested in it. (See Manufacturers Record November 14.)

Tex., Marshall.—The Marshall & East Texas Railroad is reported to have announced its intention to extend from Elysian Fields to Hemphill, Tex., about 75 miles. J. E. Votaw is vice-president and general manager and R. J. Lockwood chief engineer at Marshall, Tex.

Tex., McKinney.—F. B. Pope of McKinney is reported working on a plan for the construction of an interurban railway from Gainesville to McKinney via Tloga, Celina and Weston.

Tex., Palestine.—H. Hadberg of Dallas is reported completing survey for the proposed railroad between Palestine and Corsicana.

Tex., Rockland.—The Burr's Ferry, Brownell & Chester Railway Co. contemplates construction of an extension from Turpentine to Brownell, Tex., 18 miles. W. B. Scott of Houston is president and J. A. Turner of Rockland is general superintendent.

Tex., San Benito.—Stockholders of the San Benito & Rio Grande Valley Interurban Railway Co. have approved the proposed issue of \$10,000,000 of bonds, the proceeds of which will be used to extend the lines and make other improvements. S. A. Robertson, San Benito, Tex., is president. E. E. McLellan is chief engineer.

Va., Stanardsville.—Reported that a movement is in progress to build an electric railway from Madison Court House to Stanardsville, 12 miles, and thence to Charlottesville, 18 miles. The Mayor may be able to give information.

Tex., Sugarland.—The Sugarland Railway has made location survey for an extension from Cabell to Rodgers, Tex., 24 miles. W. T. Eldridge, Sugarland, Tex., is president; J. G. Wirtz is chief engineer and general superintendent.

West Virginia.—The Elk & Little Kanawha Railway is reported to have completed extension from Rosedale to Shock, five miles.

W. Va., Charleston.—The Charleston Interurban Co., it is reported, is making steady progress and by December 25 will complete its line from Charleston to St. Albans, W. Va., 12 miles.

### STREET RAILWAYS

Tenn., Chattanooga.—The Chattanooga & Chickamauga Railway Co., capital \$25,000, has applied for charter to build a railway from East Lake to Rossville; incorporators, W. E. Boileau, general manager of the Chattanooga Railways Co.; E. D. Reede, D. S. Hahn, Frank Spurlock and T. G. Newman.

Va., Richmond.—Both the Virginia Railway & Power Co. and the Richmond & Henrico Railway Co. have applied to the City council for permission to build extensions.

### The National Lettergraph Co.

The Lettergraph and the Lettergraph typesetter manufactured by the National Lettergraph Co. of Baltimore are illustrated and described in a pamphlet issued by the company. Methods of making up form, setting type and operating the machine are fully explained. It is stated that the letters may be printed on both the forward and backward movements of the carriage, thus permitting the operator to attain a speed of 2000 sheets per hour. It works on the flat-bed principle, which permits a wide range of use in offices. Prices and other information, together with the pamphlet, will be sent to interested persons on request.



## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

**Arch Construction.**—Charles E. Boiling, City Engineer, Richmond, Va., receives bids until 3 P. M. November 29 to construct concrete arch for extension of east end of Chesapeake & Ohio Railway tunnel near 30th and Grace Sts.; information, specifications and proposal forms may be obtained from City Engineer; certified check \$500.

**Automobiles.**—Gust. Mayer-Dinkel, Mannheim, Germany, wants addresses of American manufacturers of motor cars for heavy traffic.

**Automobile Parts.**—M. R. Zenic, 19 Aiserstrasse, Vienna, Austria, wants to correspond with American manufacturers of automobiles relative to securing parts and then assembling them on reaching destination.

**Bank Furniture.**—Bank of Sedley, Sedley, Va., wants prices on bank furniture, including safe, vault and other fixtures.

**Boiler.**—Samuel T. Williams, 223 N. Calvert St., Baltimore, Md., wants prices on 150-horse-power boiler, 125 pounds pressure; also breaching to reach to brick stack.

**Building Materials.**—Bonanza Stock Farming Co., 108½ Capitol St., Charleston, W. Va., wants prices on building materials.

**Building Materials.**—Home Lumber Co., El Paso, Tex., wants prices on lumber, shingles, sash and doors, paints, builders' hardware, roofing and builders' specialties.

**Building Materials.**—King Lumber Co., Charlottesville, Va., wants prices on building material for hospital building at Augusta, Ga., including brick, marble, tile, mill work, veneered doors and glass.

**Building Materials.**—E. N. Harrison, Erwin, Tenn., wants prices on building materials.

**Building Materials.**—Southwestern Concrete Co., Smithville, Tex., wants prices on steel ceiling, metal roofing, colored windows, window frames and doors.

**Bulkhead, etc.**—River and Canal Commission, Augusta, Ga., receives bids until 4 P. M. December 2 to furnish material and labor and build reinforced concrete bulkhead and iron gates across Hawk's Gully, between Broad St. and Savannah River; height of masonry, 50 feet; length of bulkhead, 122 feet; two wing walls, each 222 feet long; 10 gates 5x12 feet and 400 cubic yards of concrete; cash or certified check for \$300. Plans and specifications can be seen at engineer's office, 747 Broad St., Augusta; Nisbet Wingfield, chief engineer.

**Canning Machinery.**—Brooksville Packing & Preserving Co., L. Mayer, manager, Brooksville, Fla., will want closed process kettle, scalding tank, filling machine, exhauster and pulper.

**Canning Machinery.**—Tateish Trading Co., No. 2, Minami-Saegicho, Klobashiku, Tokyo, Japan, wants to interest American capitalists in establishing canning factory for crabs and lobsters; estimates on machinery.

**Canning Machinery.**—W. S. Shure, Summerville, Ala., wants to correspond with manufacturers of canning machinery; particularly interested in crimping machine for sanitary cans and peelers for peeling sweet potato.

**Cattle Feeders.**—F. L. Page, Sanitaria Springs, N. Y., wants addresses of manufacturers of calf feeders; wants description of feeders.

**Concentrating Table.**—M. Cohen, No. 1 Biddle St., corner Lewis, St. Louis, Mo., wants concentrating table.

**Cotton Drilling.**—Universal Safety Mattress Co. will want prices on drilling for mattress ticking. Address S. Preston Edmonds, Merchants' National Bank Bldg., Baltimore, Md.

**Crane.**—Stanton Foundry & Machinery Co., Palatka, Fla., wants five-ton new or second-hand foundry crane.

**Crusher.**—See "Road Machinery."

**Crushers.**—Jones Purchasing Agency, 910 S. 3d St., Minneapolis, Minn., wants No. 60 McCulloch crusher, with screens and elevator; also No. 7½ McCulloch crusher, separate.

**Ditching Dredges.**—Jones Purchasing Agency, 910 S. 3d St., Minneapolis, Minn.,

wants one one-half yard and two one-half or five-eighths yard dredging ditches.

**Electric-light Plant.**—See "Water-works and Electric-light Plant."

**Electrical Machinery, etc.**—Samuel T. Williams, 223 N. Calvert St., Baltimore, Md., wants prices on 75-kilowatt generating set complete for 125 volts, to be operated with 100 to 125 pounds pressure; also suitable feed-water heater, pump, etc.

**Electrical Machinery.**—See "Foundry Machinery and Equipment."

**Elevators.**—King Lumber Co., Charlottesville, Va., wants prices on three power electric elevators for city hospital buildings at Augusta, Ga.

**Engines.**—R. E. Haynes, Spencer, N. C., wants prices on double cylinder gasoline or kerosene engines; 10, 16, 20 and 25 horsepower. Send cuts.

**Farming Machinery.**—Bonanza Stock Farming Co., 108½ Capitol St., Charleston, W. Va., wants prices on farming machinery.

high; wood is 16 inches long and from one and one-half to two inches square.

**Incinerator.**—Bids received by Oklahoma City, Okla., filed with City Clerk, C. R. Goucher, duplicate with City Auditor, until 1.30 P. M. November 26 on garbage destructor and dead animal destructor proposition; bid to include proposition of destruction alone and collection and delivery at plant separately; bids also to include separately taking and treatment of sanitary sewage from sewer outlets, bidders to own and operate proposition and to own and control by-product; certified check 3 per cent. of bid.

**Lamps.**—Commercial Co-operative Co., F. T. Cooley, secretary, 325 Dickson Bldg., Norfolk, Va., wants addresses of manufacturers of lamps.

**Levee Construction.**—Fifth Louisiana Levee District, J. T. McClellan, president, Tallulah, La., receives bids until 2 P. M. November 30 for constructing following work on right bank of Mississippi River, Madison parish: Milliken Bend levee, enlargement and topping; 40,000 cubic yards; deposit \$175.

**Locomotive, Eccentric, etc.**—Stanton Foundry & Machinery Co., Palatka, Fla., wants addresses of manufacturers of Lonsken block and locomotive strap and eccentric log.

**Log Loader and Skidder.**—Rosslyn Lumber Co., 612 14th St. N. W., Mt. Airy, N. C., wants combination log loader and skidder for 36-inch gauge road.

**Machine Tools.**—See "Foundry Machinery and Equipment."

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

### We issue every Business Day in the Year THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

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The subscription price is \$25.00 a year. Are you a subscriber to it, or an advertiser in it? If not, you are missing an opportunity for profitable business.

**Feed-water Heater.**—See "Electrical Machinery, etc."

**Fencing.**—Bonanza Stock Farming Co., 108½ Capitol St., Charleston, W. Va., wants prices on fencing.

**Fire-department Equipment.**—Wm. R. Porter, chairman Board of Public Works, Key West, Fla., wants information and prices on two automobile fire engines.

**Foundry Equipment.**—Orr Manufacturing Co., Yazoo City, Miss., wants prices on machine-tool equipment, including multiple-spindle drills, radial drills for light and heavy machinery, electrical apparatus, cranes, heavy milling machines, engine lathe, planers, perforated sheet metal, seamless steel tubing, hydraulics valves, heavy cold-rolled sheet bar and rod steel.

**Grinding and Bolting Machinery.**—Volunteer State Mineral Co., Dr. I. Steinberg, manager, Nashville, Tenn., wants prices on machinery to grind and bolt tripoli. For a few days address Dr. Steinberg, care Board of Trade, Bristol, Va.-Tenn.

**Heating Plant.**—L. J. Taylor, Newbern, N. C., wants prices on steam-heating plant.

**Heating Plant.**—E. N. Harrison, Erwin, Tenn., wants prices on steam-heating plant.

**Heating Plant.**—H. C. Bondurant, Box 189, Jackson, Tenn., wants prices on heating plant for \$25,000 apartment-house.

**Holsting Machinery.**—Crowley Wood Yard, Crowley, La., wants machine to load wagon with wood from pile about 40 feet

**Machine-shop Machinery.**—Denmark Machine Works Co., Denmark, S. C., wants prices on turret lathe, 20-inch swing; engine lathe, 15 or 16-inch swing; patternmaker's lathe, 16 or 18-inch swing; also grinder, light shaper and planer; special taps, dies, reams, etc.

**Meter and Appurtenances.**—Baltimore (Md.) Board of Awards receives bids at office of City Register, City Hall, until 11 A. M. December 11 for furnishing 115-inch Venturi meter and appurtenances. Loch Raven, Contract No. 5; plans and specifications may be obtained from Ezra B. Whitman, water engineer, city hall; charge of \$5 for each set of plans and specifications; certified check \$250.

**Milling Machines.**—See "Foundry Machinery and Equipment."

**Mining Machinery.**—Kiamichi Gold Mining Co., H. M. McDonald, manager, Fort Smith, Ark., will open bids in about 60 days for gold-mine machinery.

**Paving.**—J. B. Winslett, City Secretary, Dallas, Tex., receives bids until 2 P. M. December 2 to pave Carroll Ave. from Ross to Swiss Ave. and Germania St. from Swiss to Ross Ave.; bidders to bid separately on following materials: Cressed pine blocks, bitulithic, vitrified brick blocks, Bermudez asphalt concrete, concrete curbs, concrete gutters or combination concrete curb and gutters; certified check \$200; specifications on file with City Secretary.

**Paving.**—Proposals received by Mayor

and Town Council of Edgewood (P. O. Wheeling), W. Va., until 8 P. M. December 2 for approximately 3½ miles stone or concrete curbing, and approximately 20,000 square yards of either brick, block, bitulithic, tarvia or Warrento paving, or oil-bound macadam. Plans and specifications can be seen and bidding sheets obtained at office of Orion Koller, civil engineer, Reilly Bldg.; certified check \$500, payable to L. B. Kletzky, Town Recorder.

**Paving.**—See "Pier Construction."

**Paving, etc.**—Proposals received at office of undersigned, Johnson City, Tenn., until 7 P. M. December 19 for constructing sewers, concrete curb and gutter and street paving with brick, asphalt, bitulithic, tarvia, asphaltic concrete, wood block, granite or concrete, for improvement districts Nos. 17, 18, 19 and 20, according to plans and specifications in office of City Engineer; work requires 2000 cubic yards excavation, 18,000 square yards street paving, 14,500 linear feet curb and gutter, 4800 linear feet 6-inch sewer connections, 19 manholes and 4200 8-inch vitrified sewer; certified check equal to 10 per cent. of amount of bid; P. F. McDonald, city commissioner; Wm. R. Ponder, recorder.

**Pier Construction.**—Baltimore (Md.) Board of Awards receives bids at office of City Register, City Hall, until 11 A. M. December 4 for construction of timber and concrete pier southward from Thames St. between Broadway and Ann St., and for paving adjacent streets; certified check \$2000; specifications and plans may be obtained from Harbor Engineer, O. F. Lackey.

**Pine Stumps.**—Ross, care of Manufacturers Record, Baltimore, Md., wants to correspond with parties owning large quantity of pine stumps. Give full particulars.

**Piping.**—Office Commissioners District of Columbia, Washington, D. C. Proposals received until 2 P. M. December 6 for furnishing and delivering 835 net tons cast-iron water pipe for use in Water Department. Specifications and form of proposal may be obtained from Purchasing Office, D. C.

**Piping.**—Office of Commissioners of District of Columbia, Washington, D. C. Proposals received until 2 P. M. December 6 for furnishing and delivering 835 net tons cast-iron water pipe for use in water department. Specifications and form of proposal may be obtained from purchasing officer, D. C. Cuno H. Rudolph, John A. Johnston, William V. Judson, Commissioners, D. C.

**Police and Penitentiary Supplies.**—M. D. Binford, 328 W. Forsythe St., Jacksonville, Fla., wants to correspond relative to handling, direct or on commission basis, convict clothing, tents and awnings, jail bunks and cots, police and sheriff's supplies.

**Pulverizing Machinery.**—Volunteer State Mineral Co., Dr. I. Steinberg, manager, Nashville, Tenn., wants prices on pulverizing machinery for tripoli. For a few days address Dr. Steinberg, care Board of Trade, Bristol, Va.-Tenn.

**Pump.**—See "Electrical Machinery, etc."

**Pumps.**—W. A. Grimes, Sparta, Ga., wants addresses of manufacturers of bicycle or automobile air pumps.

**Pumps.**—Mayor and Board of Aldermen, Biloxi, Miss., receive bids until 8 P. M. December 1 to furnish electrical pumps; plans and specifications on file with E. L. Castanera, superintendent of city water-works; certified check \$100.

**Rails.**—Virginia Steamship Co., R. C. Carden, general manager, West Point, Va., wants about 1000 linear feet small track iron; new or second-hand.

**Rails.**—Jones Purchasing Agency, 910 S. 3d St., Minneapolis, Minn., wants 10 miles 56-pound (also 60-pound) relay rail, Georgia delivery.

**Railway Construction Materials.**—Memphis & Rugby Railway Co., W. J. Francis, general manager, 1416 Memphis Trust Bldg., Memphis, Tenn., wants heavy relays and other material for use in construction of four miles standard railway.

**Razor Manufacturers.**—Eureka Safety Razor Co., 20 New York Life Bldg., Kansas City, Mo., wants addresses of manufacturers relative to manufacturing safety razors by contract.

**Reduction Machinery.**—Volunteer State Mineral Co., Dr. I. Steinberg, manager, Nashville, Tenn., wants prices on reduction machinery for tripoli. For a few days address Dr. Steinberg, care Board of Trade, Bristol, Va.-Tenn.

**Road Construction.**—Cushman-Fairleigh Engineering Co., 724 James Bldg., Chattanooga, Tenn., received bids until 11 A. M. November 27 to construct road from

Tennessee Ave. to sewage-disposal plant for St. Elmo, Tenn.; also for 22 cubic yards filter sand; full information furnished by engineers.

**Road Machinery.**—Mississippi Valley Construction Co., 1200 Fullerton Bldg., St. Louis, Mo., wants to lease 10-ton road roller; also wants small rock crusher.

**Screen Doors, etc.**—Chattanooga Builders' Supply Co., Chattanooga, Tenn., wants addresses of manufacturers of screen doors and screen wire.

**Seating.**—Southwestern Concrete Co., Smithville, Tex., wants prices on pews.

**Sewer Construction.**—Board of Control, Norfolk, Va., receives bids until 12.30 P. M. November 30 to construct reinforced concrete drain from present end of Cumberland St. drain for about 800 feet; bids to be made per linear foot; plans, specifications, proposal forms, etc., may be obtained from W. T. Brooke, City Engineer; certified check \$500.

**Sewer Construction.**—J. B. Winslett, City Secretary, Dallas, Tex., received bids until 2 P. M. November 27 to construct 15-inch vitrified pipe storm sewer on Beckley Ave. from 12th to Jefferson St.; plans and specifications on file with City Secretary.

**Sewer Construction.**—See "Water-works and Sewer Construction, Boykins, Va."

**Sewer Construction.**—Board of Public Works, L. G. Aymard, clerk, City Hall, Pensacola, Fla., receives bids until 6 P. M. December 16 to construct sanitary sewer on Belmont St. between Palafox and Davis Sts., on Brainerd St. between Palafox and Guiney Sts., and on Garden St. between Manassa and Alcaniz Sts.; 1000 linear feet eight-inch terra-cotta sewer, three brick manholes and two lamp holes; certified check \$100; plans, specifications and blank proposal forms may be obtained from City Engineer, Room 203 City Hall.

**Shafting and Pulleys.**—Gibbs Machinery Co., Columbia, S. C., wants to correspond with manufacturers of variable-speed countershafts or variable-speed pulleys, capacity up to five horse-power.

**Shipping Cases.**—Marion Clothing Factory, Marion, S. C., wants addresses of manufacturers of shipping cases. (In the South preferred.)

**Steam Shovel.**—Jones Purchasing Agency, 910 S. 3d St., Minneapolis, Minn., wants No. 6 or No. 1 Thew full circle traction shovel.

**Steam Shovel.**—West Virginia Pulp & Paper Co., Cass, W. Va., wants Marion steam shovel, model 51.

**Steam Shovel.**—J. L. Townsend, McDonalds, N. C., wants prices on small second-hand steam shovel.

**Steel Tubing.**—Universal Safety Mattress Co. will want prices on drawn-steel tubing about one inch in diameter and No. 18 to 22 gauge. Address S. Preston Edmonds, Merchants' National Bank Bldg., Baltimore, Md.

**Vacuum Cleaner.**—J. C. Parker, attorney-at-law, Franklin, Va., wants addresses of manufacturers of vacuum cleaners.

**Washing Machinery.**—Volunteer State Mineral Co., Dr. I. Steinberg, manager, Nashville, Tenn., wants prices on washing machinery for tripoli. For a few days address Dr. Steinberg, care Board of Trade, Bristol, Va.-Tenn.

**Water-works and Electric-Light Plant.**—Proposals received by Commissioners of Water and Light Improvement District, Scott McGehee, chairman, McGehee, Ark., until December 16 at 8 P. M. for furnishing materials, equipment and labor for construction and completion of water supply and electric-light system; plans and specifications on file in office of G. B. Ewing, secretary of Board of Commissioners, and in Mitchell (So. Dak.) office of Missouri Valley Engineering Co. Prospective bidders may obtain copies of plans and specifications by application to engineer, and must be accompanied by deposit of \$15; certified check for \$1500.

**Water-works and Sewer Construction.**—Dr. J. Moncreux Bland, chairman of committee, Boykins, Va., wants to correspond with party or company to investigate site, "estimate cost, advise best kind of water-works, etc., and make proposition for installation of same."

**Woodworking Machinery.**—Black & Co., Barbourville, Ky., want bids on machinery to manufacture spokes, handles of various sizes, singletrees and neck yokes; will use about six turning lathes.

### Counties of Texas.

There are 249 counties in Texas. The population of these counties ranges from 65 in Cochran county to 135,748 in Dallas county, according to the last Federal census reports. The following territorial changes have been made in the counties of Texas since 1900: Part of Tom Green county was taken in 1903 to form Reagan county; part of Pecos county was taken in 1905 to form Terrell county, and four new counties, Brooks, Willacy, Jim Wells and Culberson, were created by the Thirty-second Legislature. Two hundred and seven counties and two combinations of counties increased in population during the past decade, and of the number of counties that show increase, 12 show rates of increase of over 1000 per cent. These high percentages are for counties which in 1900 were practically uninhabited, but which since that time have become more or less settled. Tarrant county shows an increase of 56,196, representing a percentage of 107.3, and heads the list of counties that have increased their population during the past decade.

The Mississippi Bottlers' Association, representing an industry in which between \$8,000,000 and \$10,000,000 is invested, was organized last week with T. B. Blake, Jr., Columbus, president; W. B. Borden, Natchez, first vice-president; W. J. McGill, New Albany, second vice-president; A. W. McCoy, Meridian, third vice-president; A. J. Crowe, Hattiesburg, secretary; R. E. Lake, Jackson, treasurer; W. Moore, Durant, sergeant-at-arms.

## FINANCIAL NEWS

### Review of the Baltimore Market.

Office MANUFACTURERS RECORD.

Baltimore, Md., November 26.

In the Baltimore stock market during the past week the feature was Houston Oil common, which advanced from 20½ to 25, finally settling down to 24. The large advance in Merchants' Bank stock, owing to the merger of the Mechanics' Bank with it, was not followed by much trading, as the agreement was not made public until after business hours on Saturday, so that it was widely known before Monday's session of the Stock Exchange.

The record of transactions shown sales thus: United Railways common, 25½ to 25¾; do. income bonds, 66¾ to 66¾; do. funding 5s, 87¾ to 89, with last sale at 88½; do. notes, 104 to 104½; do. 4s, 84½; United Electric Light & Power 4½s, 92; Consolidated Gas, Electric Light & Power, 112; do. preferred, 110 to 110½; do. 4½s, 88; Consolidated Gas 5s, 107½; do. 4½s, 94; Seaboard Air Line common, 20¼; do. 4s, stamped, 86¾; Mt. Vernon-Woodberry Cotton Duck 5s, 75½ to 75; G. B. S. Brewing 4s, 50½ to 51.

Bank stock sold as follows: Merchants', 193 to 242, with last sale at 240; Mechanics', 34 to 32; Maryland, 22½; Commerce, 31½ to 31.

Mercantile Trust sold at 155; American Bonding, 76½ to 76; Fidelity & Deposit, 151; Baltimore Trust, 160 to 161; Maryland Casualty, 102.

Other securities were traded in thus: Houston Oil common, trust certificates, 20¾ to 25, with last sale at 24; do. preferred, trust certificates, 68 to 69½, with last sale at 68¾; do. dividend certificates, 84½; Danville Traction & Power 5s, 92½; Norfolk & Portsmouth Traction 5s, 92¼; Atlantic Coast Line convertible debenture 4s, 101¼ to 100½; International & Great Northern Corporation, 60 to 70; Maryland Electric 5s, 98; Washington, Baltimore & Annapolis 5s, 89; Baltimore

City 4s, 1961, 96½; do. do. 1958, 96; do. 3½s, 1930, 92; Consolidation Coal, 101½; Pennsylvania Water & Power 5s, 93¾ to 93½; do. common stock, 68¼ to 68; Charleston & Western Carolina 5s, 105; Chicago Railways 5s, 99¾ to 99½; Georgia & Florida common, 4; Charleston Consolidated Electric 5s, 97; New Orleans, Mobile & Chicago 5s, 87½ to 88¼; Virginia Century, 84¾; Carolina Central 4s, 92; Charleston City Railway 5s, 103½; German Fire Insurance (Baltimore), 17½; Georgia Pacific 6s, 110; Gary & Interurban collateral 6s, notes, 99; Milwaukee Refunding 4½s, 94¼; Northern Central Railway stock, 123½ to 124; Southern Railway 5s, 106¾; Georgia & Alabama Consolidated 5s, 105; Georgia Southern & Florida 5s, 105; Virginia Railway & Power 5s, 94½; Baltimore Electric preferred, 43½; do. 5s, stamped, 96; Detroit United 4½s, 76¼; Mt. Vernon Distilling preferred, 102; Fairmont & Clarksburg Traction 5s, 99¾ to 99¾; United States Steel, 74; Lexington Railway 5s, 95; Baltimore & Ohio Railroad stock, 105¾.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended November 26, 1912.

Railroad Stocks.	Par.	Bid.	Asked.
At. Coast of Conn.	100	264	267
Bank of Baltimore	100	165	165
Bank of Commerce	100	15	20
Exchange	100	162	166
Monongahela V. T. Pfd.	100	84	84
Norfolk Railway & Light	25	25	28
Seaboard Com.	100	19¾	20¼
United Rys. & Elec. Co.	50	25¼	25¾

Bank Stocks.	Par.	Bid.	Asked.
Farmers & Merchants	40	49½	50
Maryland	20	23	26
Mechanics	10	30¼	32
Merchants	100	235	240
Second National	100	200¼	200
Union	100	135	135
Western	20	37½	43½

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
American Bonding	25	76	76½
Baltimore Trust	100	160	161½
Fidelity & Deposit	50	150½	151½
Fidelity Trust	100	245	245
Maryland Trust	100	120	123
Merc. Trust & Dep.	50	155½	155½
U. S. Fidelity & Guaranty	100	180	185

Miscellaneous Stocks.	Par.	Bid.	Asked.
Baltimore Brick	100	43	47½
Baltimore Electric Pfd.	100	113	113
Con. Gas, Elec. Lt. & P. Com.	100	110	112
Consolidation Coal	100	109½	109½
G. B. S. Brewing Co.	100	3¾	4¼
Mer. & Min. Trans. Co. V. T.	100	79¾	79¾

Railroad Bonds.	Par.	Bid.	Asked.
Atlantic Coast 1st 4s	100	95	101
At. Coast Conv. Debent. 4s	100	92	92
At. Coast Conn. 4s, Cfs., 5-20s	100	92	92
At. Coast Conn. 5s	100	92	92
Balto. & Annap. S. L. 5s	100	77	77
Carolina Central 4s	100	92	92
Charleston & West. Car. 5s	100	104½	105
Coal & Coke Railway 5s	100	94	95
Coal & Iron Railway 5s	100	100	100
Florida Southern 4s	100	90¼	90¼
Georgia & Alabama 5s	100	104¼	105¼
Georgia & Florida 5s, 1st 5s	100	95	95
Georgia, Car. & North. 1st 5s	100	104½	105¼
Georgia South. & Fla. 1st 5s	100	104½	106
Macon, Dublin & Savannah 5s	100	98½	99½
New Orleans Gt. North. 5s	100	69	69
New Orleans, M. & C. 5s	100	88	88½
Raleigh & Gaston 5s	100	108½	108½
Savannah, Fla. & West. 5s	100	109	109
Seaboard 4s, Stamped	100	86½	86½
Seaboard Adjustment 5s	100	76	76
Seaboard & Roanoke 5s	100	104¼	104¼
South Bond 5s	100	106	106
Southern Railway Com. 5s	100	106½	106½
Suffolk & Carolina 5s	100	92½	92½
Wilmington & Weldon 5s	100	109½	110
Wash., Balto. & Annap. 5s	100	89	89½

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s	100	98½	100
Atlanta Con. Street Railway 5s	100	104¼	104¼
Augusta Railway & Electric 5s	100	104½	104½
Balto., Sp. Pt. & C. 4½s	100	95¾	95¾
Baltimore Traction 1st 5s	100	106¼	106¼
Central Railway (Balto.) Con. 5s	100	105	107
Charleston City Railway 5s	100	103¼	103¼
Charleston Con. Electric 5s	100	97	97¼
City & Suburban 5s (Balto.)	100	104¼	104¼
City & Suburban 5s (Wash.)	100	103	104
Fairmont & Clarksburg Trac. 5s	100	99¾	100
Knoxville Traction 5s	100	106	106
Lexington Railway 1st 5s	100	94½	95
Macon Railway & Light 5s	100	98½	99¼
Maryland Electric Railways 5s	100	98	98
Nashville Street Railway 5s	100	102¾	102¾
Newport News & Old Pt. G. M. 5s	100	76¼	80
Norfolk & Portsmouth Trac. 5s	100	91¾	92½
Norfolk Railway & Light 5s	100	99½	99½
United Railways 1st 4s	100	84½	84¾
United Railways Income 4s	100	66½	66½
United Railways Funding 5s	100	87¾	88¾
United Railways Notes 5s	100	104	104½
Virginia R. & P. 5s	100	94	95

Miscellaneous Bonds.	Par.	Bid.	Asked.
Baltimore Electric 5s, Stp.	100	95¾	96
Consolidated Gas 5s	100	94	94¼
Consolidated Gas 4½s	100	94	94¼
Con. Gas, Elec. Lt. & P. 4½s	100	87¾	88½
Consolidation Coal Ref. 5s	100	92½	92½
Fairmont Coal 1st 5s	100	96	96¼
G. B. S. Brewing 1st 4s	100	50½	50½
G. B. S. Brewing Income 5s	100	11	12
Jamison Coal & Coke 5s	100	93	93
Mt. Vernon-Woodby Cot. Duck 5s	100	74¼	75
United Elec. Lt. & P. 4½s	100	92	93

### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending November 25.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	70	75
Allen Mfg. Co. (S. C.)	55	55
American Spinning Co. (S. C.)	162	162
Anderson Cotton Mills (S. C.)	48	48
Anderson Cot. Mills (S. C.) Pfd.	100	100
Arcadia Mills (S. C.)	90	90
Arkwright Cotton Mills (S. C.)	99	106
Belton Mills (S. C.)	100	110
Brandon Mills (S. C.)	90	90
Brogan Mills (S. C.)	60	60
Chiquola Mfg. Co. (S. C.)	160	160
Clinton Mfg. Co. (S. C.) Pfd.	97	97
Clinton Cotton Mills (S. C.)	120	120
Courtney Mfg. Co. (S. C.)	93	93
Dallas Mfg. Co. (Ala.)	99	99
E. Converse Co. (S. C.)	75	75
Drayton Mills (S. C.)	90	90
Eagle & Phenix Mills (Ga.)	106	106
Easley Cotton Mills (S. C.)	162	175
Enoree Mfg. Co. (S. C.)	25	62
Enoree Mfg. Co. (S. C.) Pfd.	85	100
Gaffney Mfg. Co. (S. C.)	72	75
Gainesville Cotton Mills (Ga.)	72	80
Glenwood Cotton Mills (S. C.)	100	100
Graniteville Mfg. Co. (S. C.)	135	145
Greenwood Cotton Mills (S. C.)	57	60
Grendel Mills (S. C.)	60	100
Hartsville Cotton Mill (S. C.)	160	160
Henrietta Mills (N. C.)	160	175
Inman Mills (S. C.)	100	100
King Mfg. Co., J. P. (Ga.)	80	85
Lancaster Cotton Mills (S. C.)	130	130
Lancaster Cot. Mills (S. C.) Pfd.	97	100
Langley Mfg. Co. (S. C.)	75	75
Laurens Mills (S. C.)	125	125
Limestone Mills (S. C.)	155	160
Lockhart Mills (S. C.) Pfd.	60	60
Lockhart Mills (S. C.)	95	95
Loray Cotton Mills (N. C.) Pfd.	90	90
Mariharo Cotton Mills (S. C.)	75	75
Mills Mfg. Co. (S. C.)	90	102
Molokoh Mfg. Co. (S. C.)	90	90
Monaghan Mills (S. C.)	105	105
Monarch Cotton Mills (S. C.)	110	110
Newberry Cotton Mills (S. C.)	125	130
Ninety-Six Cotton Mills (S. C.)	130	150
Norris Cotton Mills (S. C.)	115	115
Orr Cotton Mills (S. C.)	90	93
Pacolet Mfg. Co. (S. C.)	94	94
Pacolet Mfg. Co. (S. C.) Pfd.	95	100
Parker Common	20	20
Parker Preferred	63	63
Peizer Mfg. Co. (S. C.)	120	120
Poe Mfg. Co., F. W. (S. C.)	102	102
Saxon Mills (S. C.)	120	130
Spartan Mills (S. C.)	110	125
Teton Mfg. Co. (Ga.)	130	130
Tucuman Mills (S. C.)	300	300
Union-Buffalo (S. C.) 1st Pfd.	60	60
Union-Buffalo (S. C.) 2d Pfd.	15	15
Victor Mfg. Co. (S. C.)	110	115
Warren Mfg. Co. (S. C.)	80	80
Warren Mfg. Co. (S. C.) Pfd.	100	105
Washington Mills (Va.)	28	28
Washington Mills (Va.) Pfd.	106	110
Watts Mills (S. C.)	100	110
Whitney Mfg. Co. (S. C.)	70	70
Williamson Mills (S. C.)	120	125
Wisnasset Mills (N. C.)	125	125
Woodruff Cotton Mills (S. C.)	95	100
Woodside Cotton Mills (S. C.)	100	100

### BIG BANK MERGER.

A \$25,000,000 Financial Institution Agreed Upon for Baltimore.

An agreement has been attained by the directors of each institution for the merger of the Merchants' National Bank and the Mechanics' National Bank, both of Baltimore, and the stockholders will doubtless approve the recommendation of the respective boards that the consolidation plan be fulfilled. The new bank will be known as the Merchants and Mechanics' Bank and it will occupy the building of the Merchants' Bank at the corner of South and Water streets. It will have a capital of \$2,000,000 and a surplus of \$2,000,000, with deposits aggregating from \$18,000,000 to \$20,000,000, thus making the total resources of the new concern approximately \$25,000,000. The present capital of the Merchants' National is \$1,500,000, surplus \$900,000 and deposits about \$12,000,000. The present capital of the Mechanics' National is \$1,000,000, surplus \$1,000,000 and deposits about \$7,000,000. Douglas H. Thomas, president of the Merchants', will also be president of the new bank, and John B. Ramsay, president of the Mechanics', will be chairman of the board of directors.

The financial details of the merger are being attended to by the old banking-house of Alexander Brown & Sons of Baltimore, which is represented on the board of each of the two banks. The value of the Merchants' Bank stock, par \$100, is estimated in the deal at \$226.67, and that of the Mechanics', par \$10, at \$30. Each of the banks has a fine building, that of the Mechanics' being a nar-

[For Additional Financial News, See Pages 72 and 74.]



Established 1835  
**The Merchants National Bank**  
 South and Water Sts., BALTIMORE, MD.  
 DOUGLAS H. THOMAS, President.  
 WM. INGLE, Vice-Pres. and Cashier.  
 J. C. WANDS, Asst. Cashier.  
 JOHN B. H. DUNN, Asst. Cashier.  
 Capital \$1,500,000  
 Surplus and Profits - - - \$900,000  
 Deposits \$12,000,000  
 Accounts of Banks, Bankers, Corporations  
 and Individuals solicited. We invite corre-  
 spondence.

**THE FIRST NATIONAL BANK**  
 OF KEY WEST, FLA.  
 United States Depository and Disbursing  
 Agent.  
 Capital - - - - - \$100,000  
 Surplus and Undivided Profits - \$40,000  
 A general banking business transacted.  
 Special attention given to collections.

**INVESTMENT**  
**SECURITIES**  
 Southern Stocks and Bonds  
 Municipal and Corporation  
 Cotton Mill Stock a Specialty  
 WM. S. GLENN, Broker. SPARTANBURG, S. C.

**JOHN NUVEEN & CO.**  
 1st Nat. Bank Bldg., CHICAGO  
 We purchase SCHOOL, COUNTY and MU-  
 NICIPAL BONDS, Southern Municipal  
 Bonds a Specialty.  
 Write us if you have bonds for sale.

**Delaware Trust Company**  
 WILMINGTON, DELAWARE  
 INCORPORATING under broad, liberal, safe  
 and stable Delaware laws. A fully equipped  
 department for proper organization and reg-  
 istration of corporations.  
 BANKING AND TRUST department gives  
 special attention to out of town customers'  
 accounts.  
 TITLE DEPARTMENT examines and guaran-  
 tees title to realty throughout Delaware.  
 REALTY DEPARTMENT has sites for man-  
 ufacturing industries. Modern Methods of  
 management of property.  
 EDWARD T. CANBY, President.  
 J. ERNEST SMITH, V.-Pres. and Gen. Counsel.  
 WM. G. TAYLOR, Treasurer.  
 HARRY W. DAVIS, Secretary.  
 W. W. PUSEY, 2d Title and Real Estate Officer.

H. B. Wilcox, President. Blanchard Randall, V.-Pres.  
 Wm. S. Hammond, Cashier.  
 Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.  
**The First National Bank**  
 17 South St., Baltimore, Md.  
 Capital - - - - - \$1,000,000  
 Surplus and Net Profits - - - 400,000  
 Deposits - - - - - 6,500,000  
 Especially well equipped to handle the business  
 of Southern Banks, Corporations, and Indi-  
 viduals and Manufacturers. We cordially in-  
 vite correspondence and interviews.

**The National Exchange Bank**  
 OF BALTIMORE, MD.  
 Hopkins Place, German and Liberty Streets  
 Capital \$1,000,000  
 July 15th, 1908, Surplus and Profits, \$671,631.60  
 OFFICERS  
 WALDO NEWCOMER, President.  
 SUMMERFIELD BALDWIN, Vice-Pres.  
 R. VINTON LANSDALE, Cashier.  
 C. G. MORGAN, Asst. Cashier.  
 Accounts of Mercantile, Firms, Corporations, Banks,  
 Bankers and Individuals Invited.

**SURETY BONDS**  
**Fidelity & Deposit Co.**  
 OF MARYLAND  
 Home Office, - - BALTIMORE, MD.  
 Total Assets Dec. 31, 1911, \$8,133,000.57  
 Pioneer Surety Co. of the South.  
 Becomes Surety on bonds of every de-  
 scription.

AGENTS IN ALL PRINCIPAL CITIES  
 HARRY NICODEMUS, Sec'y and Treas.  
 EDWIN WARFIELD, President

**Southern Steam**  
**Railroad Securities**  
 DEALT IN  
**F. J. LISMAN & CO.**  
 Specialists in Steam R. R. Securities  
 Members New York Stock Exchange  
 30 Broad Street NEW YORK  
 39 Pearl Street, Hartford  
 Land Title & Trust Bldg., Philadelphia

CAPITAL AND SURPLUS - - - - - \$3,500,000  
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 Interest Allowed on Deposits Subject to Check.  
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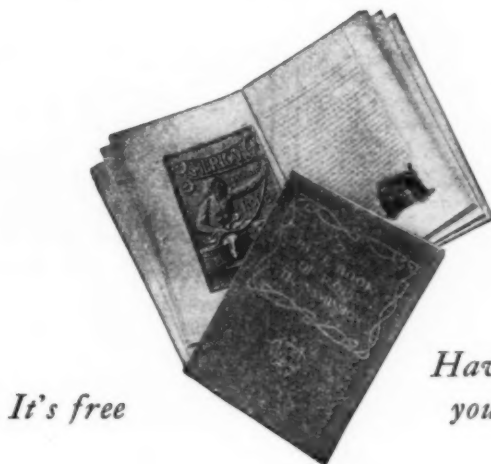
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**Electric Bond and Share Company**  
 (Paid-up Capital and Surplus, \$9,500,000)  
 71 Broadway New York

RESOURCES - - - - - \$14,975,352.57

DEPOSITS DEC. 31, 1909 ..... \$ 8,041,252.59  
 DEPOSITS DEC. 31, 1910 ..... 8,809,843.00  
 DEPOSITS DEC. 31, 1911 ..... 10,344,570.57

This growth indicates that we have the ability and disposition to give GOOD  
 TRUST COMPANY SERVICE. We can prove it—to your advantage.  
 ALLOWS INTEREST on daily balances of \$500 or over, subject to check,  
 and special rates for time deposits.  
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 Acts as Financial Agent for Municipalities and Corporations.

**MERCANTILE TRUST & DEPOSIT COMPANY**  
 OF BALTIMORE

CAPITAL - \$1,500,000.00

SURPLUS - \$3,000,000.00

ble structure erected only a very few years ago, and that of the Merchants' having been restored after damage by the great fire in 1904. The former is valued at \$450,000, including furnishings, and the latter at \$350,000. To offset the excess of value of the Merchants' Bank capital and surplus over the capital and surplus of the Mechanics' Bank there will be \$400,000 distributed pro rata to the stockholders of the former, or about \$26 per share.

The officers and directors of the banks at present are, respectively, thus:

**Merchants' National**—Douglas H. Thomas, president; William Ingle, vice-president and cashier; J. Cleveland Wands and John B. H. Dunn, assistant cashiers; directors, Douglas H. Thomas, Francis E. Waters, Charles A. Webb, John S. Gittings, Austin McLanahan, James L. Sellman, William Ingle and John K. Shaw.

**Mechanics' National**—John B. Ramsay, president; James Scott, cashier; Charles Hann and Robert A. Welsh, assistant cashiers; directors, Alexander Brown, George C. Jenkins, D. D. Malbory, John B. Ramsay, Miles White, Jr., George K. McGaw, Summerfield Baldwin, Jr., Jere H. Wheelwright, David Hutzler, Lawrason Riggs, E. B. Hunting, Morris Whitridge, Seymour Mandelbaum, W. S. Hilles, Samuel C. Rowland, Franklin Q. Brown, E. W. Lane, J. C. Fenhagen, William Wallace Lanahan and W. Bladen Lowndes.

#### FINANCIAL CORPORATIONS.

**Ala., Crossville.**—The Bank of Crossville, capital \$15,000, is reported organized with Hugh D. Black president.

**Ark., Little Rock.**—Official: The Arkansas Mortgage Co. will make application for a charter; capital \$100,000; incorporators, John M. Rose, W. W. Dickinson, H. M. Ramey, W. V. Powell and Gordon N. Peay. Business is to begin about January 1.

**Ark., Mountain View.**—The Farmers' Bank is reported organized with a paid-up capital of \$10,000. Directors: H. S. Mabry, president; H. T. Patterson, vice-president; W. M. Brower, cashier; J. B. Baker and J. W. Williamson.

**Ark., Pine Bluff.**—The Farmers' Bank is reported organized; authorized capital \$100,000, with \$25,000 subscribed. Directors: President, William L. Matthews; vice-president, Russell Hollis; secretary and treasurer, C. W. Pettigrew; H. A. Toney and Frank M. Roan.

**Ark., Pyatt.**—The Bank of Pyatt, capital \$50,000, is reported organized with W. R. Jones president, F. Carson vice-president, and N. H. Pierce cashier.

**Ark., Sheridan.**—The Citizens' Bank is reported to have begun business; capital \$20,000, J. T. Wilson is cashier.

**Fla., Jacksonville.**—The United States Trust and Savings Bank, capital \$50,000, will make application for charter; petitioners, J. J. Logan, J. J. Upchurch, W. E. Kay, Willis M. Ball and Walter Mucklow.

**Ga., Atlanta.**—The Citizens' Savings Bank & Trust Co., capital \$100,000, is organized with George W. Parrott president, R. C. McDuffie vice-president and general counsel, George J. Yundt secretary. Among the directors are H. C. Bagley; W. D. Manley, president of the Farmers and Traders' Bank; Keats Speed and Clyde L. King. Business is expected to begin about December 15.

**Ga., Rome.**—The Etowah Fire Insurance Co. has made application for a charter; petitioners, A. L. Henson, John R. Davis and John C. Davis of Floyd county; W. C. Henson of Bartow county, and George W. Cooper of Fulton county.

**Mo., St. Louis.**—The Bank Stock Trust Co. is reported being organized with \$500,000 capital. Among those interested are George F. Moore, E. F. Ustick, T. T. Fauntleroy, Charles E. Lane, F. C. Hahn, C. C. Collier, Campbell Cummings, C. H. Fauntleroy, F. E. Bryand, Wirt Wrigth and M. A. Traylor of East St. Louis. Others are Asher Cox, Xenia, Ill.; L. O. Snoddy, Golden Gate, Ill.; N. S. Helm, Benton, Ill., and L. M. Haynie, Nelson, Mo.

**N. C., Corrogorado.**—The Bank of Corrogorado, Columbus county, is reported char-

tered with an authorized capital of \$25,000; incorporators, J. C. Williamson, T. E. Barden and others.

**N. C., Corrogorado.**—The Bank of Corrogorado, Columbus county, is reported chartered with an authorized capital of \$25,000; incorporators, J. C. Williamson, T. E. Barden and others.

**N. C., New Bern.**—The Citizens' Savings Bank & Trust Co. is reported organized with the following directors: T. A. Uzzell, president; Clyde Eby, vice-president; William Dunn, Sr.; A. T. Dill, J. W. Stewart, W. R. Gulon, T. D. Warren, Joseph Gaskill, W. P. Metts, E. H. Meadows, Charles Coplin, J. S. Miller, William Dunn, Jr., J. M. Aberly and C. D. Bradham. W. H. Henderson will be cashier.

**N. C., Oxford.**—The Union Bank of Oxford, recently incorporated, is reported to have elected the following officers: E. H. Crenshaw, president; J. F. Meadows, vice-president; J. S. Bradsher, cashier; W. L. Peace, bookkeeper; J. A. Morris, E. H. Crenshaw, L. F. Perkins, J. T. Cozart, W. H. Fleming, W. A. Parham, L. A. Davis, directors.

**N. C., Pembroke.**—Official: The Bank of Pembroke incorporated; capital paid in, \$10,000; P. S. Cooper, president; Henry Herring, cashier. Business is to begin December 15.

**N. C., Rosemary.**—The Rosemary Banking & Trust Co. incorporated; authorized capital \$100,000, with \$12,000 subscribed; C. A. Wyche, president; E. H. Adkins and T. W. Mullen, vice-presidents; H. C. Irwin, cashier. Business is to begin about January 1 or sooner.

**N. C., Salisbury.**—The Salisbury Bank & Trust Co. is reported to have made application for a charter; capital \$100,000; incorporators, Thomas J. Jerome, C. S. Reames and W. E. McWhirter.

**N. C., Wilmington.**—Reported chartered: States Trust Co. authorized capital \$200,000, with \$25,000 paid in; incorporators, Ector H. Smith of Birmingham, Ala.; W. O. Tarver, Augusta, Ga., and Virgil Walker, Newbern.

**S. C., Georgetown.**—The Progressive Building and Loan Association of Georgetown is reported to have been granted a commission; capital \$10,000 to \$25,000; petitioners, J. B. Brockington, J. J. Burton, J. B. Beck, G. W. Howard and A. A. Alston.

**Tenn., Church Hill.**—Official: Chartered: Church Hill Bank; capital \$10,000; incorporators, W. R. Strode, S. A. Cooper, R. R. Roodman, G. W. Bellamy and W. C. Cooper. Business began November 20.

**Tenn., Nashville.**—The Security Bank & Trust Co. is reported being organized with \$100,000 capital stock. Incorporators, J. W. Pritchett, H. O. Balls, C. T. Matthews, H. H. Coone, T. B. Lindsey, Collin A. Winter, W. L. Looney, S. E. Wallace, Eugene L. Philpot, Dr. W. C. Gillespie, Albert F. Lee, E. Reese Bogle, H. W. Durham, H. N. Moore, Charles B. Caldwell, J. D. Robertson, Thos. J. Gross, G. F. Cole, W. E. Harrison, R. W. Bratton, James W. Lark, J. G. Cooper, C. H. Yarbrough, J. R. Beesley, Everett Philpot, William Boyd, George R. Gillespie, Thomas N. Remy and C. R. Atchison.

**Tex., Cameron.**—Official: The Citizens' Building and Loan Association is to be chartered by January 1; capital \$50,000. Directors: C. W. Lawrence, president; J. W. House, first vice-president; E. Eggert, second vice-president; William R. Rogers, secretary; J. T. Kemp, treasurer; A. J. Dossett, T. S. Henderson, R. P. Jeter, Dr. Jas. Watson and W. R. Gillis. Business is expected to begin January 1.

**Tex., Fort Worth.**—The Guaranty Trust Co., authorized capital \$2,000,000, is organizing to do a general trust business within banking privileges. Business is to begin January 1 with W. P. McLean president, M. B. Harris vice-president and treasurer, and Jas. Hammond Smith secretary.

**Tex., Groesbeck.**—The Farmers' Guaranty State Bank, with a capital of \$25,000, will, it is reported, begin business about January 1. G. N. Groves will be cashier.

**Tex., Houston.**—The Harris County Investment Co., capital \$250,000, is reported to have organized with the following officers: J. F. Wolters, president; F. F. Kendall, first vice-president and chairman of the execu-

[Continued on Page 74.]

**DELAWARE CORPORATIONS**  
—ORGANIZED—REPRESENTED—  
**LAW & FORMS FREE**  
**DELAWARE INCORPORATORS TRUST CO**  
**EQUITABLE BUILDING, WILMINGTON, DEL.**

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This remarkable machine almost eliminates time in making out monthly statements. Note what Richard F. Brune, retail groceries and meats, Sawtelle, Cal., says:

"All my monthly statements I now finish in six hours by the use of the adding machine. It formerly took my \$16-a-week bookkeeper five days to do the same work, and then the statements were not always correct. You had a hard time selling it to me, but after I had used it one week I was sorry I hadn't bought it five years ago."

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**Burroughs Adding Machine Co.**  
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CAPITAL - \$10,000,000

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**W. B. LIVEZEY, President**

**OLD DOMINION LAND COMPANY**  
NEWPORT NEWS, VA.



## ATLANTIC COAST LINE RAILROAD COMPANY.

Richmond, Va., November 19, 1912.

To the Stockholders of the Atlantic Coast Line Railroad Company:

The Board of Directors of the Atlantic Coast Line Railroad Company respectfully submits the following report for the fiscal year ended June 30, 1912:

Miles owned June 30, 1911.....	4382.47
Miles not owned but operated under lease and trackage contracts.....	123.19
Miles owned but not operated by this Company.....	4505.66
Miles operated June 30, 1911.....	4498.61
Miles added during fiscal year:	
New line at Weldon, N. C.....	3.86
Haines City Branch.....	46.24
Lines to factories, mills, etc.....	14.55
Lines operated under trackage rights.....	7.86
	72.51
Less decrease in main line mileage account line revision at Weldon.....	3.40
Total miles operated June 30, 1912.....	4567.72
Average mileage operated during year.....	4524.71
Mileage owned June 30, 1912.....	4446.11
Second track mileage operated June 30, 1912.....	137.58

## INCOME ACCOUNT.

	1912.	1911.	Inc.
Operating revenues.....	\$33,463,557 70	\$31,622,449 24	\$1,841,108 46
Operating expenses and taxes.....	23,940,977 96	21,727,786 75	2,213,191 21
Net operating revenue, less taxes.....	\$9,522,579 74	\$9,894,662 49	372,082 75
Other income.....	3,205,304 31	3,244,968 10	38,763 79
Gross income.....	\$12,727,884 05	\$13,139,630 59	410,846 54
Interest and rentals.....	5,658,936 32	5,510,434 16	148,502 16
Miscellaneous deductions from income.....	\$7,068,947 73	\$7,628,296 43	559,348 70
Net income.....	\$7,010,881 76	\$7,506,894 59	496,112 83

## INTEREST AND RENTALS.

	1912.	1911.	Inc.
Interest on Funded Debt.....	\$5,444,484 40	\$5,342,760 16	\$101,724 24
Interest on Certificates of Indebtedness.....	9,378 00	9,378 00	
Interest on Equipment Trust Bonds of March 1, 1907.....	97,341 67	115,420 00	18,078 33
Interest on Equipment Trust Bonds of December 1, 1911.....	65,156 25	2,300 00	62,856 25
Interest on Brunswick & Western Income Bonds.....	40,276 00	40,276 00	
Rentals.....	\$5,658,936 32	\$5,510,434 16	\$148,502 16

Operating revenues increased 5.82 per cent.  
Operating expenses increased 10.24 per cent.  
Taxes increased 9.31 per cent.  
Net operating income, less taxes, decreased 3.76 per cent.  
The ratio of operating expenses and taxes to operating revenues was 71.54 per cent., as compared with 68.71 per cent. for the previous year.

## DIVIDENDS.

Dividends were paid as follows during the year:	
To Preferred Stockholders 5 per cent.....	\$9,925 00
To Common Stockholders 7 per cent.....	\$4,095,586 50

## OPERATING REVENUES.

	1912.	1911.	Increase.	Per cent.
Freight.....	\$22,452,390 40	\$21,587,351 22	\$864,999 18	4.01
Passenger.....	8,407,623 64	7,723,853 86	683,769 78	8.85
Express.....	1,177,926 06	1,029,151 11	148,774 95	14.46
Mail.....	590,640 00	607,869 19	17,229 19	2.83
Excess baggage.....	108,352 65	95,318 10	13,034 55	13.67
Miscellaneous.....	726,654 95	578,895 76	147,759 19	25.52
Total.....	\$33,463,557 70	\$31,622,449 24	\$1,841,108 46	5.82

\*Decrease.

## OPERATING EXPENSES AND TAXES.

	1912.	1911.	Increase.	Per cent.
Maintenance of way and structures.....	\$4,273,544 72	\$3,926,568 50	\$346,976 22	8.84
Maintenance of equipment.....	5,038,546 80	4,583,839 71	454,657 09	9.92
Traffic expenses.....	566,317 38	537,083 07	29,234 31	5.44
Transportation expenses.....	11,752,552 46	10,556,834 22	1,195,718 24	11.33
General expenses.....	1,399,395 01	1,280,247 40	119,147 61	9.31
Taxes.....	\$23,940,977 96	\$21,727,786 75	\$2,213,191 21	10.19

## FREIGHT TRAIN MILES AND LOADING.

Freight cars per train mile decreased 0.28 per cent.  
Loaded cars per train mile increased 0.49 per cent.  
Tons per freight train mile increased 1.37 per cent.  
Loaded freight car mileage increased 2.46 per cent.  
Empty freight car mileage decreased 2.05 per cent.

## CAPITAL ACCOUNT.

To provide payment for 35 locomotives, 2000 steel under-frame freight train cars and 49 steel under-frame passenger train cars, costing \$2,789,426.83, it was deemed advisable to issue equipment trust bonds, Series "B." The indenture securing said bonds is dated October 19, 1911, and, under the same, a cash payment of \$289,426.83 was made, the balance of the principal being payable semi-annually at the rate of \$250,000 per annum, the first payment of \$125,000 being made June 1, 1912, and the last payment to be made December 1, 1921. The deferred payments bear interest at the rate of 4½ per cent. per annum. The net amount realized from sale of the \$2,500,000 of bonds was \$2,450,000.

There was no change during the year in the amount of preferred stock outstanding. Common stock outstanding June 30, 1912, amounted to \$58,745,200, an increase of \$790,800, the same being issued in exchange for \$1,054,080 of Convertible Four Per Cent. Debenture Bonds, which were retired, leaving \$9,292,040 of said Convertible Debenture Bonds outstanding June 30, 1912.

There were paid during the year \$450,000 of Equipment Trust Four Per Cent. Bonds, Series "A," and \$125,000 of Equipment Trust Four and One-Half Per Cent. Bonds, Series "B," leaving Equipment Trust Bonds outstanding June 30, 1912, as follows:

\$2,248,000 4½% Bonds, Series "A."  
2,375,000 4½% Bonds, Series "B."

\$4,623,000

There were no other changes in the bonded debt of your Company.

## CHANGES IN HOLDINGS OF COMPANY'S OWN SECURITIES IN ITS TREASURY.

There was no change during the year in the amount of Company's own securities held in its Treasury, viz.:  
United Mortgage Four Per Cent. Gold Bonds..... \$8,842,000  
First Consolidated Mortgage Four Per Cent. Bonds..... 2,438,750

## TRAFFIC.

	1912.	1911.	Per cent.
Freight:			
Tons of freight-earning revenue increased.....	1.68		
Tons carried one mile increased.....	2.77		
Mileage of revenue freight trains increased.....	1.67		
Tons per freight train mile increased.....	1.37		
Passenger:			
Number of passengers carried increased.....	4.79		
Number carried one mile increased.....	7.35		
Mileage of revenue passenger trains increased.....	5.03		
Passengers per train mile increased.....	1.76		

## OPERATING REVENUES AND EXPENSES.

Operating Revenues increased \$1,841,108.46, or 5.82 per cent., over the preceding year. The revenue from U. S. Mail decreased \$17,229.19, or 2.83 per cent., over the preceding year, and the revenue received from this service for the last fiscal year was \$9681.00, or 1.61 per cent., less than was received in the year 1903, notwithstanding increased weight of mail and requirement of the Postoffice Department for more expensive equipment and extra service, which have caused much greater expense to the Railroad Company for carrying the mails.

Operating income showed a decrease of \$372,082.75, due to a greater increase in Operating Expenses and Taxes. The total increase in Operating Expenses was \$2,094,043.60, or 10.24 per cent., the major part of which is attributable to the large increases in wages made during the year. Taxes increased \$119,147.61, or 9.31 per cent.

## INDUSTRIAL.

Beginning in November, 1911, and extending until February, 1912, your Company operated over its entire line the National Good Roads Train, under the auspices of the National Association, accompanied by special representatives of the United States Department of Roads. This train stopped at points in each county of the six States served by the Atlantic Coast Line, where the demonstrations and lectures given attracted an attendance of over 21,000 people.

In the fall of 1911 an Agricultural Train, under the auspices of the Agricultural Department of the State of Georgia, was operated over your line in that State; attendance approximately 10,000 people.

In the spring of 1912 the Farm Demonstration Train, under the auspices of the State University of Florida, made a complete tour of your lines in that State, and attracted an attendance of over 24,000 people.

Between June, 1911, and September, 1912, a Farm Demonstration Train was operated under the auspices of Clemson College (State Institution) of South Carolina, over all of your line in that State, with an attendance of about 25,000 people.

Since July 1 a similar train has been operated in North Carolina, and in the fall of this year one will be operated in Alabama.

The facts presented to the rural population and the farmers by these Farm Demonstration trains are bringing forth excellent results.

During the year 344 heads of families located on your lines in various States and engaged in agricultural pursuits. The number located shows an increase over the previous year of 941, or 26.7 per cent.

215 factories, mills and other manufacturing industries were located at local points on your line.

During the past year your Company has constructed 170 industrial side tracks and extensions to reach new plants or the enlargement of same.

An exhibit of the various agricultural products grown along your lines has been prepared, and is being displayed at many State and county fairs throughout the Middle West, and is successfully attracting attention to the agricultural possibilities of the South.

## DOUBLE TRACK.

Additional second track has been under construction and all but the last item will be completed and in operation before January 1, 1913, as follows:

	Miles.
Battleboro to Weldon, N. C.....	28.9
Roanoke River, N. C. to Virginia State Line.....	7.6
Mount Holly, S. C. to Santee River, S. C.....	27.6
Falling Creek to James River, Va.....	5.9
	69.1

## RAIL RELAYING AND INCREASE IN SIDE TRACKS AND YARD TRACKS.

There were laid during the year 14.55 miles of additional industrial tracks and 48.17 miles of side and yard tracks, a total of 62.72 miles.  
There were relaid 213.55 miles, or 3 per cent., of total main and branch line mileage, as follows:

	Miles.
New 85-pound rail.....	143.14
New 70-pound rail.....	.03
Relay 85-pound rail.....	.55
Relay 80-pound rail.....	1.07
Relay 75-pound rail.....	.02
Relay 70-pound rail.....	53.60
Relay 65-pound rail.....	.15
Relay 60-pound rail.....	3.66
Relay 55-pound rail.....	5.80
Relay 50-pound rail.....	5.48
Relay 45-pound rail.....	.95
Total.....	213.55

At the close of the year 31.7 per cent. of your main and branch line mileage was laid with rail weighing 85 pounds per yard, and 65.5 per cent. was laid with rail weighing 70 to 85 pounds.

## NEW CONSTRUCTION.

The new line between Weldon and Garysburg, N. C., including the elevated structure through Weldon, the steel viaduct and bridge across Roanoke River, was put into service in December, 1911. This work was referred to in last year's report.

The new line from Haines City, Fla., to Sebring, Fla., referred to in last year's report, was completed and put into operation in June, 1912.

Construction of new line from Dunnellon, Fla., northwestwardly to a point 1.5 miles west of Wilcox, Fla., a distance of 59.1 miles, was begun in April, 1912, and should be completed prior to June 30, 1913.

Work was begun on the James River Branch at Richmond, Va., a distance of 5.9 miles, in May, 1912, and should be completed early in 1913.

Construction was begun in January, 1912, of the Lacorne Park Branch, 5.7 miles, leading out from the Bartow Branch, and the work was completed in September, 1912.

Construction of a new line from Archer, Fla., to Morrilton, Fla., a distance of 20.23 miles, has been commenced and should be completed in June, 1913. The present line between these two points is owned by the Seaboard Air Line Railway, and trains of your Company are operated over it under a trackage agreement.

## GENERAL REMARKS.

Weather conditions during the past twelve months have had a marked influence on the operation of your railroad. Excessive snow and rain in the late winter months interfered with the movement of fertilizer, with the consequent effect of delaying crops. Continued rains throughout the spring caused much damage to track and serious delays to the large amount of new construction work being carried on.

On May 12, 1912, a serious fire, caused by lightning, destroyed your Company's cotton sheds and warehouses at Savannah, Ga. Contracts were immediately let to replace the destroyed structures by modern ones with concrete base and creosote block floors. These buildings, and the increased facilities that are being provided, will have ample fire protection, and should be completed in time to take care of the fall cotton movement.

Anticipating a larger freight movement, contracts were placed for 4519 freight cars to be delivered during the fiscal year 1911-1912 and summer of 1912. When this equipment is all delivered the Company will have added over 15 per cent. to its freight car roster.

We renew the expression of our appreciation of the intelligent and faithful work done by our officers and employees.

T. M. EMERSON, President.  
H. WALTERS, Chairman.

## COMPARATIVE GENERAL BALANCE SHEET.

June 30, 1911.	Assets.	June 30, 1912.
	Property Investment.	
	Road and Equipment.	
	Investment to June 30, 1907:	
\$118,942,894 70	Road.....	\$118,942,894 70
25,893,719 39	Equipment.....	25,893,719 39
		\$144,746,614 09
\$8,476,372 86	Investment since June 30, 1907:	
4,630,143 73	Road.....	\$10,632,392 65
259,931 50	Equipment.....	7,635,777 22
	General Expenditures.....	259,931 50
		18,528,101 37
\$158,117,972 18	Reserve for Accrued Depreciation, Cr.....	\$163,274,625 46
7,224,516 88		8,477,578 85
\$150,893,455 30	Total.....	\$154,797,046 61
	Securities:	
	Securities of Proprietary, Affiliated and	
	Controlled Companies—Unpledged:	
\$142,440 06	Stocks.....	\$145,440 06
	Other Investments:	
	Miscellaneous Investments:	
\$618,891 44	Physical Property.....	\$706,149 86
45,554,229 58	Securities—Pledged.....	45,554,229 58
4,090,798 28	Securities—Unpledged.....	4,116,231 56
		\$50,376,602 00

Working Assets:		
Cash	\$13,661,870 10	
Securities Issued or Assumed—Held in Treasury		
Funded Debt	11,280,750 00	
Marketable Securities:		
Stocks	\$129,009 79	
Funded Debt	2,196,162 66	
Miscellaneous	16,590 00	
Loans and Bills Receivable	2,341,612 45	
Traffic and Car Service Balances due from Other Companies	244,490 31	
Net Balance Due from Agents and Conductors	428,319 74	
Miscellaneous Accounts Receivable	449,561 33	
Materials and Supplies	721,615 96	
Other Working Assets	2,660,775 35	
	68,391 77	
Total	\$31,857,387 01	
Accrued Income Not Due:		
Unmatured Interest, Dividends and Rents Receivable	\$1,161,918 04	
Deferred Debit Items:		
Advances:		
Temporary Advances to Proprietary, Affiliated and Controlled Companies	\$989,159 88	
Working Funds	9,298 82	
Other Advances	25 00	
Special Deposits	\$989,483 70	
Cash and Securities in Sinking and Redemption Funds	625,911 18	
Cash and Securities in Insurance and Other Reserve Funds	157,000 00	
Other Deferred Debit Items	168,182 25	
	548,449 36	
Total	\$2,488,117 49	
Grand Total	\$236,746,328 20	
Liabilities.		June 30, 1912.
Stock:		
Common Stock	\$56,964,400 00	
Class "A" Richmond & Petersburg R. R. Co. Stock	1,000,000 00	
Preferred Stock	198,500 00	
Premiums realized on Capital Stock	\$58,162,900 00	
Total	\$61,112,780 00	
Mortgage, Bonded and Secured Debt:		
Funded Debt:		
Mortgage Bonds—held by Company	\$11,855,750 00	
Not held by Company	\$4,244,000 00	
Collateral Trust Bonds—Not held by Company	\$96,099,750 00	
Plain Bonds, Debentures and Notes—Not held by Company	35,000,000 00	
Income Bonds—Not held by Company	9,526,040 00	
Equipment Trust Obligations—Not held by Company	46,000 00	
Total	\$144,423,870 00	
Working Liabilities:		
Traffic and Car Service Balances due to Other Companies	\$549,389 54	
Audited Vouchers and Wages Unpaid	1,811,397 32	
Miscellaneous Accounts Payable	253,154 09	
Matured Interest, Dividends and Rents Unpaid	446,100 09	
Matured Mortgage, Bonded and Secured Debt Unpaid	7,000 00	
Other Working Liabilities	288,824 06	
Total	\$3,355,865 10	
Accrued Liabilities Not Due:		
Unmatured Interest, Dividends and Rents Payable	\$2,903,344 74	
Taxes Accrued	499,797 92	
Total	\$3,403,142 66	
Deferred Credit Items:		
Operating Reserves	\$1,781,647 08	
Other Deferred Credit Items	354,499 13	
Total	\$2,136,146 21	
Appropriated Surplus:		
Additions to Property since June 30, 1907, through Income	\$150,000 00	
Reserves from Income or Surplus	415,000 00	
Total	\$225,000 00	
Profit and Loss:		
Balance	\$22,164,524 23	
Grand Total	\$236,746,328 20	\$241,474,580 94

## [Continued from Page 72.]

tive board: J. T. Gibbons, second vice-president; W. E. Keldall, treasurer; F. P. Chandler, secretary.

Tex., San Antonio.—Official: The Fidelity Loan Co., 221-222 Bedell Bldg., incorporated; capital \$50,000; Hon. J. J. Stevens, president, postmaster of San Antonio; Hugh Kauffmann, vice-president, care of Pearl Brewery; E. D. Henry, secretary and treasurer, sixth floor Bedell Bldg.; S. H. Wells, Grand Opera-house, and Roy Campbell, 714 Gibbs Bldg. Business began November 15.

Tex., Temple.—The Farmers' State Bank is reported chartered; capital \$25,000; incorporators, C. L. McPherson, W. M. Cobb, R. M. Thomson, J. T. West, D. N. Adams, W. E. Green, W. L. Stedman, E. S. Beasley, J. T. Davis, T. M. Sake, J. S. Michael and J. M. Baker.

Va., Richmond.—A new bank capitalized at \$125,000 is reported being organized with Joseph F. Willard president, H. A. Hare vice-president, and Oscar E. Parrish vice-president and cashier. It is said the new institution will succeed the Church Hill branch of the Bank of Commerce and Trusts, although the latter institution will retain a substantial interest in the new bank.

Va., Sedley.—Official: The Bank of Sedley incorporated; capital \$25,000; Philip Rogers, president; Dr. R. L. Ralford, vice-president, Sedley, Va.; T. E. Beale, second vice-president, R. F. D. Franklin, Va., and J. F. West, Jr., cashier. Business is about to begin.

## NEW SECURITIES.

Ala., Fort Payne.—Official: Defeated: De Kalb county road bonds. James A. Croley is Probate Judge.

Ala., Prattville.—December 16, it is reported, an election is to be held to vote on \$10,000 of 6 per cent. 10-year funding bonds; denomination \$1000.

Ala., Tuscaloosa.—Ordinances have been prepared providing for the issuing of \$3000 of 8 per cent. bonds to provide sinking fund.

Fla., Auburndale.—The town is offering 15-year 8 per cent. certificates of indebtedness for sidewalk construction of approximately \$5000. Address J. Wiley Jones, Town Clerk.

Fla., Bradentown.—On October 29 city voted \$75,000 of street paving, sewer, water-works and drainage building 5 per cent. bonds. George B. Wallace is Mayor.

Fla., Green Cove Springs.—Reported voted: \$30,000 of street, water and light improvement bonds.

Fla., Jacksonville.—Bids will be received until 3 P. M. December 19 for \$250,000 of 4½ per cent. improvement bonds; denomination \$1000; dated February 1, 1912; maturity February 1, 1937. W. M. Bestwick, Jr., is chairman board of trustees.

Fla., Pensacola.—Press reports now state that the election to vote on \$400,000 of dock and \$100,000 of light-plant bonds has been changed from January 14 to December 30. Frank Reilly is Mayor.

Fla., Pensacola.—Frank Reilly, Mayor, confirms report that election to vote on \$400,000 of municipal docks and belt railroad bonds is postponed until January 11; denomination \$1000. Interest is not to exceed 5 per cent.

Fla., Tampa.—The \$115,000 of Hillsborough River bridge bonds (being part of an authorized issue of \$190,000) is reported declared valid.

Ky., Bellevue.—Reported defeated: \$15,000 of sewer and \$60,000 of street and alley improvement bonds.

Ky., Cadiz.—An election will probably be held in Trigg county January 25. It is reported, to vote on \$150,000 of pike bonds.

Ky., Corydon.—Reported voted: \$8000 of electric-light bonds.

Ky., Hawesville.—Reported voted: \$25,000 of Hancock county bridge bonds; also \$125,000 of Butler district, \$100,000 of Poe district and \$25,000 of Grant district road bonds.

Ky., Ludlow.—Reported defeated: \$30,000 of sewer bonds.

Ky., Nicholasville.—Reported voted: \$30,000 of school bonds.

Ky., Shelbyville.—Reported voted: \$75,000 of Shelby county courthouse bonds.

La., Mansfield.—November 27, it is reported, an election is to be held to vote on \$45,000 of bonds for water-works and to provide a sinking fund.

Md., Annapolis.—Reported that all bids received for the \$1,000,000 of 4 per cent. 10-15-year State road bonds were rejected and that new bids will be opened on January 2. Murray Vandiver is State Treasurer.

Miss., Brookhaven.—Reported that bids will be opened December 2 for \$50,000 of 5½ per cent. road bonds of District No. 1, Lincoln county.

Miss., Holly Springs.—Notice is given that city proposes to issue \$12,500 of street improvement bonds.

Miss., Senatobia.—Reported that on December 5 city will issue \$18,000 of bonds for improving water-works and extending sewerage system.

Mo., Mexico.—Reported that an election will probably be held to vote on \$70,000 of school-building bonds.

Mo., Palmyra.—H. W. Pallman is reported to have purchased at par and interest \$6000 of 4½ per cent. light and water bonds.

Mo., Sheldon.—Reported that \$90,000 of 5 per cent. school bonds were recently purchased by Francis Bros. & Co. of St. Louis.

N. C., St. Matthews.—Reported defeated: \$20,000 of Calhoun county courthouse and jail bonds.

Okla., Atoka.—December 10, it is reported, an election is to be held in Atoka county to vote on \$65,000 of courthouse and jail construction bonds.

Okla., Bartlesville.—Official: Defeated: \$25,000 of city hall bonds. C. A. Lamm is Mayor.

Okla., Durant.—The First National Bank and the Durant National Bank of Durant are reported to have purchased \$6000 of park bonds. It is also reported that city has sold \$5000 of light bonds.

Okla., Enid.—Spitzer, Rorick & Co., Toledo, are reported to have purchased \$25,000 of 5 per cent. 25-year gas bonds. W. C. Rogers is City Clerk.

Okla., Guthrie.—Press dispatches state that \$2,500,000 of State bonds have been declared valid and can be issued.

Okla., Ponca.—Official: Defeated November 5: \$75,000 of LeFlore county courthouse and jail bonds. A. B. Green is County Clerk.

Okla., Sapulpa.—Reported voted: \$100,000 of factory bonds.

S. C., Greenville.—Greenville county will probably issue bonds for new courthouse.

Tenn., Johnson City.—Reported voted: \$50,000 of school-building bonds.

Tenn., Nashville.—Reported that a bill is to be introduced in the Legislature providing for the issuing of bonds for addition to new

high school; estimated cost of addition \$250,000.

Tex., Abilene.—Official: H. C. Speer & Sons Company, Chicago, purchased on October 17 at par and accrued interest \$30,000 of 5 per cent. 40-year permanent street-improvement bonds; denomination \$1000; dated August 16, 1912. Bonds were voted July 29, 1912. E. N. Kirby is Mayor.

Tex., Austin.—The Attorney-General is reported to have approved the following securities: \$102,620 of 5 per cent. 35-year bonds of Cameron county drainage district No. 2; \$17,500 of district No. 1 and \$1800 of district No. 10 5 per cent. 10-20-year Camp county common school district bonds; \$1890 of 5 per cent. 5-10-year Cooke county bridge refunding bonds; \$125,000 of Trinity River improvement bonds; \$5000 of 5 per cent. 40-year bonds of Denton county common school district No. 66; \$1600 of 5 per cent. 5-20-year bonds of Leon common school district No. 47.

Tex., Calvert.—Official: Bids will be received until 4 P. M. December 4 by Wm. McIntosh, Mayor, for \$25,000 of 5 per cent. 10-40-year sewer bonds. Dated January 1, 1913. Denomination \$25.

Tex., Conroe.—An election is to be held December 23, it is reported, to vote on \$250,000 of bonds for road improvements in Conroe Precinct No. 7, and part of Justice Precincts Nos. 4 and 6, Montgomery county.

Tex., Conroe.—December 23, it is reported, an election is to be held in Montgomery county to vote on \$250,000 of road bonds.

Tex., Dublin.—Official: \$44,000 of school bonds have been approved, and will soon be offered for sale. J. H. Latham is president, Board of Education.

Tex., Groveton.—December 10, it is reported, an election is to be held in Trinity county to vote on \$60,000 of road bonds of Precinct No. 1.

Tex., Palacios.—Reported voted: \$100,000 of road-improvement bonds of district No. 1, Matagorda county.

Tex., Richmond.—Chapman, Mills & Co., Chicago, are reported to have purchased at par \$30,000 of 5 per cent. 10-40-year bonds of road district No. 3.

Tex., San Antonio.—City is reported planning \$5000 bond issue for internal improvements. Election date not named.

Tex., Sulphur Springs.—Official: The United States Bond & Mortgage Co. of Dallas, Tex., has purchased at \$30,000 and accrued interest to date of delivery \$30,000 of 5 per cent. water-works bonds. T. Coleman is Mayor and C. W. Higgins City Secretary.

Tex., Taylor.—Official: Voted November 5: \$10,000 of 5 per cent. 10-40-year school-building bonds; denomination \$1000; dated January 1, 1912. C. M. Steel is Mayor.

Tex., Texarkana.—Reported voted: \$50,000 of school bonds.

Va., Purcellville.—Reported voted: \$5000 of 5 per cent. light and street-improvement bonds.

Va., Purcellville.—Reported voted: \$5000 of 5 per cent. 1-10-year street lighting and improvement bonds.

W. Va., Beckley.—Reported voted: \$50,000 of bonds for new high school.

W. Va., Cowen.—Glade district, Webster county, is reported to have voted \$22,000 of bonds for erection of new high school at Cowen.

W. Va., Clintwood.—Reported that N. W. Pressley, cashier, Dickenson County Bank, Clintwood, is receiving bids for \$54,000 of 5 per cent. 2-30-year Dickenson county road bonds.

W. Va., Janele.—Reported voted: \$8000 of high-school bonds.

W. Va., Welch.—Reported voted: \$150,000 of bonds of Browns Creek district, McDowell county.

W. Va., Welch.—Official: Bids will be opened on December 14 by F. C. Cook, secretary Board of Education, for \$150,000 of 5 per cent. 20-30-year bonds of Browns Creek school district; denomination \$1000; dated January 1, 1913; maturity January 1, 1943; optional after 20 years.

## FINANCIAL NOTES.

The Realty Trust Co. of Birmingham, Ala., proposes, it is stated, to increase its capital from \$450,000 to \$1,000,000.

James J. Roberts, Gainesville, Ga., says he can give good business (after satisfactory references) to bankers or brokers in position to handle a good issue of irrigation bonds, or to take up full issues of Southern municipal bonds and industrial securities.



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